

MEANING MAKING WITH SURVIVORS OF CHILDHOOD CANCER

Meaning Making with Adult Survivors of Childhood Cancer

by

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A capstone submitted in partial fulfillment
of the requirements for the Degree of

Master of Counselling (MC)

City University of Seattle

Vancouver, BC, Canada site

September, 2022

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Acknowledgement

We must never forget that we may also find meaning in life even when confronted with a hopeless situation, when facing a fate that cannot be changed. For what then matters is to bear witness to the uniquely human potential at its best, which is to transform a personal tragedy into a triumph, to turn one's predicament into a human achievement.

– Viktor Frankl

To my capstone supervisor, Dr. Jill Taggart and faculty reader, Dr. Christopher Kinman, thank you for your guidance, support, and enthusiasm for this project.

To my internship supervisor, Sharon Paulse and the team at the Late Effects, Assessment, and Follow-up (LEAF) clinic, thank you for so generously investing in my learning, sharing your extensive wisdom and expertise, and believing in mine.

To my classmates, the BC-22 cohort, thank you for challenging me, inspiring me, and being “my people” through two long years of pandemic isolation.

To my colleagues in pediatric oncology and music therapists, Carol and Brooke, thank you for engaging in meaning making alongside me every day and modelling compassion and care beyond words.

To all the childhood cancer patients, survivors, and family members who have shared parts of their journey with me. You have inspired this project and remind me daily to choose what matters and live courageously.

To my village of family and friends, thank you for being my cheerleaders along the way and the open arms at the finish line.

To Lori, Lewis, and Amelia. You have made this dream possible. Thank you for all the sacrifices you have made, for generously stepping up and taking tasks off my plate, for

encouraging me to keep studying and writing. I hope you look back on these years and feel proud of what we accomplished together. I know I do.

Abstract

While surviving childhood cancer is associated with adverse physical and psychological late effects in adulthood, survivorship also presents opportunities for psychospiritual growth through meaning making. Meaning making is defined as the cognitive process of making sense of an experience and incorporating that understanding into one's beliefs and values. Guided by the philosophies of Viktor Frankl (1959, 2014) and logotherapy, this capstone examines meaning making as a mechanism to promote coping, identity formation, and posttraumatic growth after childhood cancer. Meaning-centered interventions and an experiential workshop to introduce meaning making to adult survivors of childhood cancer are proposed.

Keywords: adult survivors of childhood cancer, meaning making, posttraumatic growth, psychospiritual growth, logotherapy

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Chapter 1: Introduction

As a result of advancements in modern cancer therapies, more children are surviving cancer than ever before. Today, over 80% of Canadian children diagnosed with cancer will be cured of their disease and survive into adulthood (Ellison et al., 2021). As the field of survivorship grows, so have efforts to understand the long-term sequelae of adult survivors of childhood cancer and identify interventions to promote quality of life (Howard et al., 2018; Landier et al., 2018). Cantrell and Conte (2009) describe the experience of survivorship after childhood cancer as a paradox. While the completion of treatment and a curative outcome is a much anticipated and celebrated event, childhood cancer survivors must grapple with fear of relapse and resulting physical and psychosocial impacts of such a highly stressful experience during their developmentally formative years (Cantrell & Conte, 2009; Duffey-Lind et al., 2006; Weekes & Kagan, 1994).

The aim of this capstone is to identify interventions that foster meaning making after childhood cancer to promote coping and posttraumatic growth in adult survivors. In chapter one, I will describe the research problem, including the traumatic nature of the childhood cancer experience and the prevalence of posttraumatic stress in adult survivors. I will consider the significance of this capstone within the childhood cancer survivorship literature and identify how this topic contributes to the field of cancer survivorship study. Logotherapy and the philosophies of Viktor Frankl (1959, 1967, 2014) are introduced as the theoretical lens for this paper to frame the experience of suffering and meaning making after cancer. In my statement of positionality, I will examine my relationship between the research topic and my lived experience to illuminate potential assumptions and preconceptions that have the potential to influence how I investigate and report on these themes. Chapter one will conclude with a definition of terms employed

throughout this paper. In chapter two, I will explore the psychosocial impact of childhood cancer and the late effects associated with survivorship. Additionally, I will review the literature on meaning-centered therapeutic approaches in the cancer setting. Chapter two will conclude with a discussion of implications for clinical practice, including interventions conceptualized to address the unique psychosocial concerns of adult survivors of childhood cancer and foster meaning making. In chapter three, I will propose a workshop for adult survivors of childhood cancer at a long-term follow-up clinic that will introduce participants to meaning making as a mechanism to facilitate coping with life challenges and promote posttraumatic growth after cancer.

Background to the Research Problem

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013), a life-threatening illness such as cancer constitutes a traumatic event. Childhood cancer survivors are likely to have experienced many traumas throughout their course of treatment related to the uncertainty of their prognosis, painful and invasive medical procedures, and extended hospitalizations (Schwartz & Drotar, 2006). The diagnosis and treatment of childhood cancer may produce significant long-term effects that manifest in posttraumatic stress symptoms (Langeveld et al., 2004). Posttraumatic stress is associated with intense and often debilitating cognitive, behavioural, and physiological reactions to the memory of an event perceived as life-threatening or a violation of one's sense of safety and security (Foa et al., 1989). The prevalence of posttraumatic stress in childhood cancer survivors ranges from 6 to 22% with symptomatology identified even years out from treatment (Tremolada et al., 2016).

Posttraumatic stress after childhood cancer may be further compounded in adulthood by the interaction of the physical and cognitive effects of cancer treatment, genetics, and

environmental factors (Yeh et al., 2010). Typical challenges of young adulthood, such as forming relationships or making independent financial or health-related decisions become notably more complex alongside emerging late effects from treatment (Gerhardt et al., 2007). Posttraumatic stress symptoms include intrusive thoughts about diagnosis and stressful treatment events, physiological arousal associated with health concerns and reminders of cancer, and avoidance of thoughts associated with cancer, treatment, and hospitalization (Tremolada et al., 2016). Risk factors for developing posttraumatic stress symptoms after childhood cancer include female gender, being unmarried, unemployment, lower education level, lower annual income, perception of treatment intensity, severe late effects, chronic health problems, less perceived social support, and being of an ethnic minority group (Langeveld et al., 2004; Smith et al., 2008; Stuber et al., 2010; Tremolada et al., 2016).

In addition to symptoms of intrusion and avoidance, posttraumatic stress in childhood cancer survivors is associated with elevated levels of negative emotionality (Koutná et al., 2017) and psychological distress. (Burghardt et al., 2019; Hobbie et al., 2000; Meeske et al., 2001). It is well documented that subgroups of childhood cancer survivors are at elevated risk for distress symptoms associated with depression, anxiety, and somatization (Zebrack et al., 2002, 2004; Zeltzer et al., 2008) as well as increased interpersonal sensitivity, aggression, and psychotic tendencies (Michel et al., 2010). While most survivors are well adjusted, those who do exhibit symptoms of psychological suffering score significantly higher on distress scales than adults receiving psychotherapy treatment who have not experienced childhood cancer (Michel et al., 2010). Brinkman et al. (2013) note that psychological distress may be persistent or emerge several decades after the original cancer diagnosis. Additionally, adult survivors of childhood cancer with depression, chronic health conditions, pain, and previous central nervous system

cancer are at heightened risk for suicidal ideation (Brinkman et al., 2014; Recklitis et al., 2010). These critical risk factors have important implications for long-term follow-up programs, including regular screening for psychological distress and therapeutic interventions tailored to the unique needs and experiences of adult survivors of childhood cancer.

Purpose Statement

The perception of the pediatric cancer experience is reported as central to survivors' identity and a predictor of both positive and negative psychological outcomes in childhood cancer survivors (Cook et al., 2021). The intent of this capstone is to better understand the mechanism of meaning making on the processes of posttraumatic stress and posttraumatic growth in adult survivors of childhood cancer. This will be accomplished through a discussion of the late effects and psychosocial experiences of adult childhood cancer survivors and a review of the literature on meaning making in the cancer setting. In addition, I will discuss implications for clinical practice and conceptualize meaning-centered interventions to address the unique concerns of this survivorship population and foster coping and posttraumatic growth. In chapter 3, I will propose a workshop for adult survivors introducing participants to meaning making concepts to facilitate opportunities for social connection, identity formation, and positive growth after childhood cancer. The purpose of this inquiry is threefold, and therefore this capstone will seek to answer the following three questions:

1. How is survivorship experienced by adult childhood cancer survivors in the physical, informational, emotional, psychological, social, practical, and spiritual domains (Fitch, 2008)?
2. What are the processes associated with positive psychosocial spiritual outcomes, including posttraumatic growth after childhood cancer?

3. How can meaning constructs and meaning-centered therapeutic approaches inform interventions to promote meaning making in adult survivors of childhood cancer?

Significance of this Capstone

Much of the literature on childhood cancer survivorship presumes deficits and recommends identifying and addressing adverse outcomes to the extent possible to increase survivors' quality of life (Hewitt et al., 2003; Landier et al., 2018; Oeffinger et al., 2006; Zebrack et al., 2004). Emerging conceptual frameworks have proposed that coping, meaning making, and posttraumatic growth processes are also possible outcomes of the childhood cancer experience and predictors of long-term psychosocial well-being (Parry & Chesler, 2005; Zeltzer et al., 2009). Parry and Chesler (2005) note that while there may be overlap between interventions to prevent posttraumatic stress and those to promote posttraumatic growth, the perspective is different. While targeted interventions to promote posttraumatic growth in adult survivors of childhood cancer have not been well defined, the positive changes described by survivors are psychospiritual in nature and involve a profound shift in one's sense of meaning, purpose, and life outlook (Cantrell & Conte, 2009; Parry, 2003; Parry & Chesler, 2005). This is consistent with findings that the search for and discovery of meaning is central to the psychological processes that can result in posttraumatic growth after a highly stressful experience (Tedeschi & Calhoun, 1996, 2004).

Although having received peripheral attention within the field of childhood cancer survivorship (Duran, 2013; Parry, 2003; Parry & Chesler, 2005; Rabelais et al., 2019), meaning making is an established framework in psycho-oncology to promote emotional adjustment and enhance posttraumatic growth in cancer survivors by addressing the spiritual needs that arise from the cancer experience (Breitbart et al., 2010, 2015; Henry et al., 2010; Lee et al., 2006; Park

et al., 2008). Adult survivors of childhood cancer have unique needs that may impact the reason they search for meaning (Lee, 2008), the cognitive and emotional processing of meanings and beliefs (Dondanville et al., 2016), and the meanings made (Park, 2010). Childhood cancer survivors were treated during critical periods of development before they had reached full physical or cognitive maturity. As they enter adulthood, their risk for long-term sequelae may increase as they gain the cognitive skills to process and understand the implications of their cancer experience (BC Cancer, 2017; Zebrack & Isaacson, 2012). The formation of adult identity and the attainment of young adult developmental milestones may be delayed or difficult to achieve (BC Cancer, 2017; Hobbie et al., 2000; Schwartz et al., 2015). This presents an opportunity to explore therapeutic frameworks that attend to meaning making to help conceptualize interventions to promote identity formation, coping, and posttraumatic growth in light of adult survivors' unique psychosocial and spiritual concerns after childhood cancer.

Guiding Theory

In this paper, I will apply the theoretical lens of logotherapy and the philosophies of Viktor Frankl (1959, 1967, 2005, 2014) to conceptualize suffering and the pursuit of meaning after cancer. The term logotherapy denotes healing through meaning as it derives from the Greek word *logo*, which translates as meaning (Frankl, 1959). Developed by Viktor Frankl, an Austrian psychiatrist, neurologist, and Holocaust survivor, logotherapy is founded on the belief that human beings are innately motivated to find purpose and meaning in life (Frankl, 1967, 2014). Logotherapy seeks to explore the dimension of meaning making, a spiritual dimension that Frankl (1959) asserts makes us uniquely human. Frankl's theories were influenced by his personal experience of suffering and loss in Nazi concentration camps which he describes along with the philosophy and techniques of logotherapy in his book *Man's Search for Meaning*,

initially published in 1946. Frankl (2014) argues that while suffering is unavoidable, individuals always have a choice in the perspective they take. He states, “everything can be taken from a man but one thing: the last of the human freedoms—to choose one’s attitude in any given set of circumstances, to choose one’s own way” (p. 62). His person-centered, existential therapeutic approach has been shown to reduce psychological distress and promote posttraumatic growth after highly challenging circumstances such as cancer (Southwick et al., 2014; Tedeschi & Riffe, 2016).

Contribution to the Field

Cancer survivorship is considered a distinct phase of cancer treatment necessitating specialized care to address the unique needs of this population (Howard et al., 2018). Childhood cancer survivors encounter many challenges as they navigate adulthood altered by their experiences of cancer diagnosis and treatment (Svedberg et al., 2016), yet assumptions of pathology have the potential to limit recognition of the wide range of outcomes (Parry & Chesler, 2005). In addition to commonly reported adverse physical and psychological late effects, survivorship also presents opportunities for survivors to re-story their experiences and create a more meaningful life (Park, 2013a). While it has been suggested that processes of coping, meaning making, and psychospiritual growth are related to long-term psychosocial well-being (Parry & Chesler, 2005), therapeutic interventions that target the formation of meaning in cancer survivors remain understudied in the literature (Lichtenthal et al., 2015).

In this capstone, I will aim to respond to this gap by reviewing the literature on meaning making in the cancer setting and conceptualizing interventions to address the concerns of adult survivors and promote coping, identity formation, and posttraumatic growth after childhood cancer. This will contribute to clinical practice by disseminating information on the unique

psychosocial needs of this population and conceptualizing meaning-centered interventions for psychosocial clinicians providing care to this group of survivors. Additionally, I will propose an experiential workshop to offer adult survivors of childhood cancer opportunity to reflect on relevant issues of survivorship in a supportive setting, learn about meaning making concepts, and provide feedback for future group interventions.

Reflexivity/Positionality Statement

My interest in the childhood cancer experience and meaning making began over two decades ago when I embarked on my career as a certified music therapist in the pediatric oncology setting. Sitting at the bedside of children and adolescents undergoing cancer treatment, I learned to appreciate the power of human connection, music, and meaning making to make the intolerable tolerable and to illuminate forces of resilience, creativity, humour, and love within the realm of suffering. As a counsellor in training, I have been afforded the opportunity to learn alongside a committed interdisciplinary team at a long-term follow-up clinic for adult survivors of childhood cancer. My background in pediatric oncology offers me a unique perspective on the trajectory of the childhood cancer experience and informs my counselling practice with this population of survivors. I am profoundly impacted by the wisdom, strength, and resilience of these individuals as they navigate the physical, cognitive, and psychosocial impacts of childhood cancer treatment. While this capstone explores posttraumatic growth and meaning making after childhood cancer, my intention is not to invalidate the suffering inherent in the cancer experience or dismiss the necessity of improving treatment outcomes. In the words of Viktor Frankl (2014), “let me make it perfectly clear that in no way is suffering *necessary* to find meaning. I only insist that meaning is possible even in spite of suffering--provided, certainly, that the suffering is

unavoidable. If it *were* avoidable, however, the meaningful thing to do would be to remove its cause, be it psychological, biological or political” (p.106).

Many of us have been impacted by cancer, and I am no exception. While my lived experience adds passion and credibility to this project, it may also introduce assumptions and predispose me to a preferential examination of literature on posttraumatic growth after cancer at the exclusion of less optimistic outcomes. To address this, I will ensure a review of the literature from peer-reviewed sources and seek feedback from external sources, including my capstone advisor, faculty second reader, internship supervisor, and colleagues. Apart from my gender, my social locations afford me unearned advantages in society. I approach this topic as a White, cisgender, heterosexual woman of European descent, able-bodied, from a middle-class background and educated at a graduate level. My personal experiences of hardship and posttraumatic growth are oriented in locations of privilege. Adult survivors of childhood cancer with marginalized identities are at high risk for social and material disadvantage which can adversely impact mental and physical health outcomes (Lynam & Cowley, 2007). In response, I will aim to include research that addresses diversity and marginalization within the experience of childhood cancer survivorship and the resulting impact on posttraumatic stress and posttraumatic growth processes in adulthood.

Definition of Terms

Adult survivors of childhood cancer

Individuals 19 years of age and over who survived for five or more years after treatment for cancer diagnosed during childhood or adolescence (Hudson et al., 2003).

Chemotherapy

A group of cytotoxic drugs used to kill cancer cells or stop them from dividing. Also referred to as systemic therapy as it travels throughout the body by the bloodstream. It can affect both cancer and normal cells. (BC Cancer, 2018).

Coping

The process of “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 142)

Developmental disruption

The understanding that pediatric cancer and its treatment have the potential to disrupt the physical, cognitive, and social development of children and adolescents. Because development occurs as a succession of related stages, one building on another, disruption at an earlier stage profoundly impacts subsequent development (Olivo & Woolverton, 2001).

Identity

A fundamental organizing principle which develops throughout the lifespan and provides a sense of continuity within self and in interactions with others. A composition of goals, values, and beliefs to which a person is committed. (Erikson, 1968).

Late effects

Complications, disabilities, chronic illness, or adverse physical and psychosocial outcomes that are the result of the disease process, the treatment, or both (Hewitt, 2003).

Meaning

The sense of purpose or significance in one’s life. Meaning may include important life goals, the personal significance of a particular life circumstance, values, or spirituality. (Breitbart, 2016; Frankl, 1985).

Meaning making

Efforts to understand the appraised meaning of an event and to incorporate that understanding into one's beliefs, goals and values (Park & Folkman, 1997). The activity of making sense of an experience (Kegan, 1982). A concrete response to a hidden potential that brings something of value to the doer or to the world (Frankl, 2014).

Meanings made

The products or results of the meaning-making process (Park, 2010).

Posttraumatic growth

The positive psychological and life changes an individual undergoes as a result of struggling with highly challenging circumstances (Tedeschi & Calhoun, 1996). Also, benefit finding resulting from trauma (Morrill et al., 2008).

Radiation Therapy

The use of high-energy radiation beams directed to a specific area of the body or radioactive isotopes inserted into the body to kill cancer cells or stops them from growing and reproducing (BC Cancer, 2018).

Chapter Summary

In this chapter, I introduced the reader to the paradoxical nature of childhood cancer survivorship. I outlined the purpose of this capstone to identify interventions that facilitate meaning making after childhood cancer to promote coping and posttraumatic growth in adult survivors. I described the research problem, including the prevalence of posttraumatic stress and associated psychological distress in adult survivors of childhood cancer. The significance of this capstone and the study of posttraumatic growth and meaning making were explained against the backdrop of current trends and opportunities in the childhood cancer literature. I positioned

myself within these research themes by reflecting on my personal and professional experiences related to the topic of meaning making after cancer to help elucidate potential assumptions and preconceptions that may influence this capstone project. The therapeutic approach of logotherapy and the philosophies of Viktor Frankl (1959, 1967, 2014) were introduced as a guiding theoretical framework for this capstone to help the reader conceptualize suffering and the pursuit of meaning in life after cancer. This chapter concluded with a definition of terms employed throughout the paper. In the next chapter I will examine the late effects and resulting physical, cognitive, psychosocial, and psychospiritual impacts of childhood cancer treatment on adult survivors. I will review the literature on meaning-centered therapeutic frameworks and meaning making in the oncology setting. The chapter will conclude with a discussion of clinical implications and conceptualize meaning-centered interventions to promote coping, identity formation, and posttraumatic growth in adult survivors of childhood cancer.

Chapter 2: Literature Review

Adult survivors of childhood cancer experience a range of physical, emotional, and social impacts from the treatment they received as children (Hewitt et al., 2003; Landier et al., 2015; Oeffinger & Robison, 2007). Canadian clinical practice guidelines for psychosocial care in adult oncology indicate person-centered, psychosocial health care across all adult cancer populations, including those in the survivorship phase (Howell et al., 2009). Psychosocial care is conceptualized within the biopsychosocial framework (Engel, 1981), which emphasizes the interaction between biological, psychological and social factors. In addition to negative physical, cognitive and psychosocial sequelae, many survivors report positive outcomes from having cancer in the form of psychospiritual growth, increased appreciation for life, and enhanced relationships. (Gianinazzi et al., 2016; Tremolada et al., 2016; Yi et al., 2015). Studies of positive outcomes after childhood cancer suggest that interventions to promote psychosocial well-being extend beyond the prevention and treatment of distress and seek to activate positive coping, identity development, and posttraumatic growth (Parry & Chesler, 2005; Yi et al., 2015; Zebrack et al., 2012). Meaning making has been identified as a central mechanism for adapting and thriving in the wake of a highly stressful event such as cancer (Park et al., 2008, 2020). The investigation of meaning-centered constructs serves to identify interventions to reduce psychological suffering and promote psychospiritual growth in adult survivors of childhood cancer.

In this chapter, I utilize a biopsychosocial spiritual framework to explore the physical, cognitive, and psychosocial late effects of childhood cancer treatment in addition to the spiritual effects of the cancer experience, including processes of identity development and posttraumatic growth. I summarize the literature on meaning constructs and meaning-centered therapeutic

approaches in psycho-oncology and explore meaning-centered interventions conceptualized through Frankl's (1967, 2014) logotherapy and proposed sources of meaning. Finally, I discuss the role of the meaning-centered therapist, including characteristics of the therapeutic relationship and issues of countertransference.

Late Effects in Childhood Cancer Survivors

Children who were treated for cancer are at risk for severe somatic and mental health complications that may adversely impact quality of life in adulthood. (Erdmann et al., 2021). The same treatments that are responsible for survival are known to produce adverse physical and cognitive effects that may not become apparent until later in life and tend to cumulate over time (Hudson et al., 2013; Yeh et al., 2010). Chronic illness, disabilities, complications, or adverse physical or psychological outcomes resulting from the disease process or treatment are generally referred to as *late effects* (Hewitt et al., 2003). While some survivors report no or very mild late effects, subgroups are at high risk for physical or mental health conditions, adverse social and socioeconomic consequences and diminished psychological well-being (Michel et al., 2010; Zebrack et al., 2004; Zeltzer et al., 2009). It is estimated that 75% of childhood cancer survivors will experience at least one late effect (Hudson et al., 2013; Robison & Hudson, 2014) and half will experience a late effect that is severe, disabling, or life-threatening by the time they are 50 (Armstrong et al., 2014).

Physical Effects

Many childhood cancer survivors are at significant risk of late morbidity and mortality as a consequence of the numerous therapeutic exposures related to their cure (Landier et al., 2018). A longitudinal study of more than 10,000 adult survivors of childhood cancer revealed that survivors are eight times more likely to have severe or life-threatening chronic health conditions

than their siblings (Oeffinger et al., 2006). Surgery, chemotherapy, and radiation therapy can impact any system of the body and administered during childhood can alter normal patterns of physical and cognitive growth and development (Schwartz et al., 2015; Yeh et al., 2010). As survivors age, certain chemotherapy agents may increase their risk of developing cardiovascular issues (Lipshultz et al., 2013), hearing loss (Beyea et al., 2020; Brooks & Knight, 2018), peripheral neuropathy (Kandula et al., 2018), and kidney failure (Dieffenbach et al., 2021). Radiation therapy can result in thyroid-related complications and endocrine and metabolic late effects (Chemaitilly & Hudson, 2014), including obesity (Garmey et al., 2008; Green et al., 2012; Oeffinger et al., 2003), diabetes (Meacham et al., 2009), osteoporosis (Wasilewski-Masker et al., 2008), growth delay and decreased stature (Gurney et al., 2003; Sklar & Wolden, 2011), and musculoskeletal function loss and deformity (Oeffinger et al., 2006). Pulmonary complications are also a significant issue for those treated with radiation to the lungs, with severity associated with younger age of exposure and radiation dosage (Motosue et al., 2012). Additionally, certain types of chemotherapy, older age at treatment, and pelvic or total body radiation put both males and females at risk for sexual dysfunction and fertility issues later in life. (Green et al., 2009, 2010). As treatment protocols continue to evolve, so do the associated risk factors and our understanding of late effects (see *Guidelines for Survivors* website [Children's Oncology Group, 2018] for latest research and survivorship guidelines).

Adult survivors of childhood cancer have a reduced life expectancy as much as 28% (Yeh et al., 2010) and an 8-fold risk of premature death compared to the general population (Mertens et al., 2008). Recurrent disease is the most common cause of mortality, followed by second cancer, cardiac, and pulmonary late effects (Armstrong et al., 2009). Survivors exposed to radiation and certain types of chemotherapy are six times more likely to develop a second cancer

even more than 20 years from their initial diagnosis, with breast and thyroid cancer being the most prevalent (Friedman et al., 2010; Landier et al., 2015). A higher burden of morbidity and mortality is associated with survivors of bone tumours (Geenen et al., 2007), older age (Hudson et al., 2013; Oeffinger et al., 2006), and female sex (Armstrong et al., 2009) as well as treatment at a younger age (Armstrong et al., 2009), with bone marrow transplant (Armenian et al., 2011) and with radiation therapy (Armstrong et al., 2010; Geenen et al., 2007).

Cognitive Effects

Neurocognitive sequela is a prominent late effect of childhood cancer (Hocking et al., 2011; Landier et al., 2018). Cranial radiation on the developing brain is a well-established risk factor for cognitive impairment (Mulhern et al., 1991; Spiegler et al., 2004). Additionally, certain chemotherapy treatments have been shown to produce adverse neurocognitive effects (Peterson et al., 2008). Cognitive effects from cranial radiation may become evident a year or two after treatment and are progressive (Krull et al., 2013; Landier et al., 2015). Brain tumour survivors are the highest risk group for cognitive impairment, and vulnerability increases with younger age of exposure to cranial radiation, whole brain radiation, surgical intervention, and cerebrovascular events (Olsson et al., 2014; Reimers et al., 2003). Affected survivors may experience deficits in executive functioning, cognitive processing, psychomotor processing, memory, attention, impulse control, fine-motor functioning, and verbal and visual-spatial skills (Butler & Haser, 2006; King et al., 2019; Robinson et al., 2013). These impairments may delay the survivor's ability to acquire new skills compared to peers and negatively impact relationships and academic achievement resulting in reduced educational attainment, underemployment, and unmarried status (Reimers et al., 2009; Zebrack et al., 2004).

Psychosocial Effects

While many survivors of childhood cancer are psychologically healthy and report good life satisfaction, certain groups are at high risk for adverse psychosocial outcomes and psychological distress (Zeltzer et al., 2009). The Children's Oncology Group (2018) recommends the screening and management of late effects that may impact psychosocial functioning in the following domains: adverse psychosocial and quality of life effects, limitations in healthcare and insurance, mental health disorders, psychosocial disability due to pain, high-risk behaviours, and fatigue and sleep problems.

Quality of Life and Access to Healthcare. Prominent psychosocial and quality of life concerns reported by childhood cancer survivors include social isolation, educational problems, relationship problems, unemployment or under-employment, and dependent living. These effects are more frequently observed in survivors with comorbidities, younger age at diagnosis, lower household income, female sex, failure to graduate high school, neurocognitive problems, physical limitations, seizures, scarring or disfigurement, vision or hearing loss, premorbid learning or emotional difficulties (Barrera et al., 2005; Boman et al., 2010; Font-Gonzalez et al., 2016; Forsbach & Thompson, 2003; Gurney et al., 2009; Wengenroth et al., 2014). Those diagnosed with bone cancer and brain tumours are also at elevated risk, as are those who received treatments directed at the central nervous system or bone marrow transplant (Children's Oncology Group, 2018).

Financial hardship and limitations accessing healthcare and insurance are additional concerns for many childhood cancer survivors (Kirchhoff et al., 2010). Many survivors are at increased risk for adverse socioeconomic outcomes due to underemployment and lower educational achievement and may require support to access vocational assistance and benefits for unemployment, disability, and rehabilitation (Frederiksen et al., 2019). Factors that may increase

barriers to healthcare and health-related benefits include lower household income, lower educational achievement, underemployment, and living in a rural location. (Children's Oncology Group, 2018; Howard et al., 2018).

Mental Health Disorders. Subgroups of childhood cancer survivors experience elevated psychological distress and mental health disorders, including depression, anxiety, somatization, posttraumatic stress symptoms, interpersonal sensitivity, aggression, and psychotic tendencies (Hobbie et al., 2000; Hudson et al., 2003; Michel et al., 2010; Schwartz & Drotar, 2006; Stuber et al., 2010; Zebrack et al., 2002, 2004; Zeltzer et al., 2009). Elevated levels of psychological distress in childhood cancer survivors have been associated with increased use of antidepressant medications in addition to poor health behaviours, including smoking, alcohol use, fatigue and sleep disturbance (Zeltzer et al., 2009). Psychological distress has been observed in survivors due to compromised sexual well-being, self-concept, and body image (Olivo & Woolverton, 2001), as well as fertility related distress due to reproductive concerns, unfulfilled desire for a child, and early menopause (Logan et al., 2019). Risk factors for mental health disorders and psychological distress include female gender, physical limitations, low household income, prior trauma, young age at diagnosis, mental health or learning issues prior to cancer, parental history of anxiety, depression, or posttraumatic stress disorder, low levels of support, cancer of the central nervous system, treatment targeting the central nervous system, treatment with bone marrow transplant and relapse (Burghardt et al., 2019; Children's Oncology Group, 2018; Rusiewicz et al., 2008; Zebrack et al., 2004; Zeltzer et al., 2009).

Pain, Sleep, and Risky Behaviours. Psychosocial disability due to pain denotes functional or social impairment due to chronic pain, migraines, osteonecrosis, peripheral neuropathy, or phantom pain. Survivors who have had bone cancers, amputations, radiation to

bones or joints, limb-sparing surgery, and exposure to certain chemotherapy medications are at higher risk for psychosocial disability due to pain (Children's Oncology Group, 2018). Pain in adult survivors has been associated with high-risk behaviours, including smoking and substance use (Bauld et al., 2005), in addition to sleep difficulties and fatigue (Rach et al., 2017). Risky behaviours are those that increase the likelihood of subsequent illness or injury and are more commonly noted in those with lower socioeconomic status, lower education achievement, acquired brain injury, developmental disability, and older age at diagnosis (Children's Oncology Group, 2018; Clarke & Eiser, 2007). Fatigue and sleep problems are concerns for many cancer survivors and especially those who were treated for cancers of the brain, neck, and head (Clanton et al., 2011). Additional risk factors associated with sleep disturbance include female gender, depression, obesity, unemployment, and pulmonary radiation (Children's Oncology Group, 2018; Clanton et al., 2011).

Psychospiritual Effects

A cancer diagnosis during childhood or adolescence may impact psychospiritual adjustment in adulthood. The concept of spirituality generally refers to how an individual derives purpose and meaning in life (Wong, 2012). While one's meaning system may be rooted in a faith tradition with a belief in God or a belief in higher powers, it is also possible to derive purpose and meaning without a religious orientation or a predisposing belief system (Greenstein & Breitbart, 2000). Though research has tended to focus on the adverse late effects or negative impacts of a childhood cancer diagnosis on health and quality of life, there is data to suggest that there may be positive late effects of childhood cancer in the spiritual domain (Gianinazzi et al., 2016; Koutná et al., 2017; Poncy, 2020; Tobin et al., 2018; Yi et al., 2015). The psychospiritual themes in the cancer survivorship literature highlight life's contradictions and emphasize the

integration of perceived gains and losses to actively find the positive meaning that exists in one's life in relation to cancer (Parry & Chesler, 2005).

Existential Uncertainty. One of the prominent psychospiritual themes that illustrates the dialectical nature of the cancer experience is existential uncertainty (Parry, 2003). The adverse effects of existential uncertainty have been documented within the stress and coping framework as a source of psychological distress, somatization, and high-risk health behaviours (Heathcote et al., 2021; Lee, 2006; Lee et al., 2009; Santacroce & Lee, 2006). As childhood cancer survivors enter adulthood they become developmentally and cognitively capable of processing the serious nature of their diagnosis and the impacts of their treatment (Schwartz et al., 2015; Schwartz & Drotar, 2006). At different stages of development, they may experience heightened levels of uncertainty around their relationships, family planning, work, and physical health (Yi et al., 2016). While the experience of surviving cancer may elicit anxiety when considering an uncertain future, survivors also describe positive impacts of uncertainty, such as when it becomes a catalyst for psychospiritual growth, a newfound sense of purpose, and greater appreciation for life (Cantrell & Conte, 2009; Parry, 2003; Zebrack & Isaacson, 2012).

Identity Formation. Identity formation is a salient theme in the childhood cancer survivorship literature. The physical and psychological sequela of childhood cancer treatment may impede the mastery of developmental tasks such as identity formation (Erikson, 1968) and independence and autonomy from the family (Madan-Swain et al., 2000). This is especially poignant for survivors who underwent treatment for cancer as adolescents and consequently missed out on regular teenage experiences resulting in a delay in social and emotional development (Cantrell & Conte, 2009). Even when cancer treatment is finished, the experience remains part of the survivor's identity lifelong (Cook et al., 2021). Survivors are challenged to

mourn the loss of their previous identity and establish a new identity that integrates the perceived losses and adverse effects of treatment as well as the benefits they have realized from the experience (Cantrell & Conte, 2009). For instance, Servitzoglou et al. (2009) found that while survivors identify a higher susceptibility to health problems, they also perceive themselves as more mature and grounded than their peers who did not have childhood cancer. Duffey-Lind et al. (2006) note that many young adult survivors report feeling relieved to be finished treatment yet uncomfortable getting used to a new definition of normal. Identity formation may also be impacted by the complex feelings of guilt many survivors describe, including guilt for surviving when others did not and guilt for putting their parents, siblings, and loved ones through treatment experiences (Duffey-Lind et al., 2006). Identification with being a cancer survivor or ‘cancer identity’ may produce fear and anxiety or gratitude and growth depending on the survivor’s life outlook and psychological well-being (Granek et al., 2012).

Posttraumatic Growth. The negative consequences associated with cancer during childhood can coexist with positive psychological effects in adulthood (Casillas et al., 2006). Despite the prevalence of significant late effects, many adult survivors report positive shifts in their sense of meaning, purpose, and life outlook after childhood cancer (Cantrell & Conte, 2009; Parry, 2003; Parry & Chesler, 2005; Yi et al., 2015). Over 80% of adolescent survivors credit at least one positive outcome to their childhood cancer experience, and 32% report multiple positive outcomes after cancer (Barakat et al., 2006). Perceived positive outcomes include increased psychological maturity, greater compassion and empathy, new values and priorities, new confidence and strength, enhanced spiritual or religious beliefs, improved relationships, a sense of purpose or meaning, and a deeper appreciation for life (Parry & Chesler, 2005; Zebrack et al., 2012). These positive outcomes are associated with older age at diagnosis, greater

treatment severity and life threat, less time since diagnosis, female gender, and belonging to a minority race (Zebrack et al., 2012).

Positive changes as a result of having cancer are described in the psycho-oncology literature as posttraumatic growth (Casillas et al., 2006; Cook et al., 2021; Gianinazzi et al., 2016; Turner et al., 2018), resilience and thriving (Harms et al., 2019; Min et al., 2013; Parry & Chesler, 2005; Rowland & Baker, 2005), benefit finding (Lechner et al., 2003; Michel et al., 2010; Wicks & Mitchell, 2010) and perceived positive impacts (Zebrack et al., 2012). Together they denote the attribution of positive interpretations or meaning to highly challenging circumstances and the creation of new adaptive perspectives or worldviews as a result of experiencing the event (Tedeschi & Calhoun, 2004; Zebrack et al., 2012). The most common measure of posttraumatic growth, the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), assesses positive changes across five domains: relationships, new possibilities, appreciation of life, personal strength and resilience, and spiritual change. Posttraumatic growth in adult survivors has been shown to include a balance of several factors, including stress and adaptive coping, goals, optimism, finding meaning, connection, belonging, and utilization of social support (Greup et al., 2018; Yi et al., 2015), whereas posttraumatic stress is strongly associated with negative affect states, symptom distress, and maladaptive coping (Greup et al., 2018; Shand et al., 2015; Triplett et al., 2012).

Relation between Posttraumatic Stress and Posttraumatic Growth. There have been numerous oncological studies on the relationship between posttraumatic stress and posttraumatic growth with variable results (Menger et al., 2021). Some of the early research indicates a positive relationship in that the amount of stress associated with a traumatic experience reflects the amount of potential for posttraumatic growth (Duran 2013). Other studies found that

posttraumatic stress and posttraumatic growth are relatively independent processes rather than opposite ends of a single dimension (Koutná et al., 2021; Shand et al., 2015; Triplett et al., 2012) or identify a connection between certain aspects of trauma-induced stress and posttraumatic growth (Klosky et al., 2014; Koutná et al., 2017, 2021). For example, an advanced cancer diagnosis (Marziliano et al., 2020), fear of death (Gunst et al., 2016), fear of recurrence (Koutná et al., 2021), and current depressive symptoms (Gunst et al., 2016) have been found to be a catalyst for posttraumatic growth in the presence of social support (Casellas-Grau et al., 2018; Gunst et al., 2016). Research also supports a curvilinear association where stress symptoms result in posttraumatic growth to a point, but there is a threshold to which individuals can be resilient and manage stress (Kleim & Ehlers, 2009; Marziliano et al., 2020). Enduring stress has been negatively correlated with posttraumatic growth (Greup et al., 2018), as has distress related to dissatisfaction with medical care (Liu et al., 2021). Zebrack (2022) emphasizes that life disruptions, precancer conditions, discrimination, and exposures to adverse childhood events may also impact the trajectory of resilience and posttraumatic growth in childhood cancer survivors. Overexposure to stress has been associated with a variety of adverse health outcomes and may prevent the possibility of resilience and growth (Zebrack et al., 2012). This may help explain why brain tumour survivors report less perceived positive impact and greater psychological distress as their behavioural and cognitive effects put them at high risk for ongoing stress due to social isolation and marginalization (D'Agostino & Edelstein, 2013; Stavinocha et al., 2018; Zebrack et al., 2012).

Event Centrality. Event centrality proposes that posttraumatic stress and posttraumatic growth may result after a life-altering experience such as cancer because the event becomes an organizing principle in the survivor's worldview and developing sense of self (Cook et al.,

2021). Event centrality does not require that the individual perceive the event as traumatic to experience adverse or positive effects from it (Zebrack et al., 2012). Cook et al. (2021) found that the childhood cancer experience is perceived as highly central to the survivor's identity regardless of how traumatic they perceive the event to be. Zebrack et al. (2012) note that cancer centrality may explain why those treated at a young age who have very little memory of the event may still report a perceived positive impact. The development of distress or well-being is strongly associated with the adult survivor's subjective perception of their childhood cancer treatment and its effects rather than objective medical variables such as cancer treatment, severity, or prognosis. (Duran, 2013; Koutná et al., 2017). The centrality of cancer has the potential to be either a motivator or a hindrance to healthy coping, growth, and identity formation depending on a complex interaction of coping style, cognitive processing, and emotional responses (Boals & Schuettler, 2011; Zebrack et al., 2012). An understanding of these mechanisms in childhood cancer survivors can guide the development of interventions that minimize cancer's negative effects and promote positive growth and identity formation to support the successful achievement of adult developmental tasks such as establishing employment, forming a family, and achieving autonomy (Zebrack et al., 2012).

Meaning Making after Cancer

Meaning making has been defined as the process of making sense of an experience (Kegan, 1982) and involves efforts to understand a stressor such as cancer and integrate the appraised meaning of the event into one's beliefs, values, and goals (Park & Folkman, 1997). Reker & Wong (1988) define meaning as "the cognizance of order, coherence and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment" (p. 221). Frankl (2014) proposed that the drive to find meaning is the basic

motivation of human beings, whereas the failure to find meaning or meaninglessness, is the primary source of existential distress and psychopathology. Meaning making has been identified as a highly adaptive coping strategy for psychological adjustment after cancer (Breitbart et al., 2010; Park et al., 2008; Park, 2012) and a mechanism for posttraumatic growth after childhood cancer (Duran, 2013; Gianinazzi et al., 2016; Parry & Chesler, 2005). In this section, I summarize the literature on meaning constructs, present meaning-centered therapeutic frameworks within psycho-oncology and discuss clinical implications of meaning making with adult survivors of childhood cancer.

The Meaning Making Model

Childhood cancer survivors face many challenges due to late effects, yet survivorship also offers an opportunity to reappraise their cancer experience and create more meaningful lives (Park, 2013a). The meaning making model developed by Park and Folkman (1997) explains how individuals find meaning in response to stressful events. The model differentiates between global meaning and situational meaning. Global meaning is comprised of one's general understanding of the way the world works, including how one perceives themselves, control, justice, spirituality, goals, and values. Global meaning determines patterns of behaviour, thoughts, and emotions during everyday situations and times of stress. Situational meaning refers to the significance one derives from a specific event such as cancer. Meaning systems are comprised of global and situation meaning and are the frameworks by which individuals structure their lives and assign meaning to specific situations (Park, 2013b; Park & Folkman, 1997).

Meaning Systems

The meaning system perspective asserts that each person has a unique global meaning system that orients them to the world and proposes that behaviour and attempted solutions to

problems can be understood within the context of personal global and situational meanings (Slattery & Park, 2011). According to this framework, the process of meaning making involves efforts to understand the appraised meaning of a stressor such as cancer or resulting treatment effects and incorporate that understanding into one's global meaning system (Park & Folkman, 1997). For example, the experience of having cancer or emerging late effects may violate the survivor's global beliefs that they have control over their life and that the world should be predictable, ordered, and fair. This creates a discrepancy in their personal meaning system (Park, 2013b). For adult survivors of childhood cancer, situational meaning can be complex and characterized by seemingly contradictory meanings, such as feelings of sadness, loss, and anxiety alongside feelings of gratitude, connection, and personal growth (Yi et al., 2015). Discrepancies among beliefs, behaviours, and expectations have been shown to result in psychological distress and produce a strong motivation to reduce the discrepancy and associated distress through the process of meaning making (Slattery & Park, 2011). Thus, the survivors meaning making efforts following cancer shape their understanding of the cancer experience and increase their sense of coherence with their global meaning to reduce the discrepancy between them. (Park & Folkman, 1997). Lee (2008) refers to this search for meaning after cancer as the "existential plight of cancer" (pg. 780). While some survivors report feelings of resilience and experience their lives more fully after cancer, others struggle with existential issues, including fear of death, meaninglessness, isolation, and loss of identity (van Der Spek & Vedonck-De Leeuw, 2017). The meaning making model proposes that coping with a stressful event and experiencing subsequent positive growth occurs through the reduction of discrepancies between situational meaning and global beliefs and goals (Slattery & Park, 2011). When a survivor can re-establish a sense that their lives are coherent and meaningful, they experience better

psychological adjustment and positive growth. Furthermore, the identification of positive growth after cancer can help restore a sense that life is coherent and meaningful even while life events may remain uncertain or unpredictable (Park, 2013b; Park et al., 2008).

Meanings Made

While some cancer survivors find that meaning-centered strategies are related to better psychological adjustment and positive growth, others experience maladjustment and increased psychological distress in the search for meaning (Park et al., 2008; van der Spek et al., 2017). Park et al. (2008) propose that meaning making is only helpful when it results in meanings made. Meanings made refers to the products or results of the meaning making process (Park, 2010). The process of meaning making may initially lead to problem-solving and adaptive coping responses but it can become detrimental if it perpetuates a ruminating process with no resolution (Park et al., 2008). Zebrack & Isaacson (2012) similarly note that the question often asked by childhood cancer survivors, “why has this happened to me” can be either a source of distress or a catalyst for personal growth depending on the survivor’s emerging awareness of their life purpose and meaning in relation to having cancer. Van der Spek et al. (2013) found that while many survivors report enhanced meaning after cancer through improved relationships, new experiences, resilience, and goal formation, other survivors identify a loss of meaning after cancer due to altered social roles, difficulties in relationships or starting a family, lack of employment, and uncertainties about the future. Many products of meaning making have been identified as contributors to psychological adjustment and positive growth after cancer (Park et al., 2008). Positive meanings made include perceptions of posttraumatic growth (Tedeschi & Calhoun, 1996), a deepened sense of meaning in life (Triplett et al., 2012), a change in identity

(Madan-Swain et al., 2000; Zebrack et al., 2012), enhanced spiritual or religious meaning (Hall et al., 2020) or increased relationship quality (van der Spek et al., 2013).

Meaning-Focused Coping

Meaning-focused coping has become highly central to meaning-centered therapeutic work in the cancer setting (Breitbart et al., 2017) and is founded on Frankl's (2014) assertion that meaning is individually constructed, malleable to change, and responsive to therapeutic intervention. Coping refers to the behavioural or cognitive efforts one exerts in response to the demands of a stressful situation (Lazarus & Folkman, 1987). Coping strategies that have been shown to improve distress after cancer include problem or active-focused coping, where one takes direct action to solve the problem, emotion-focused coping aimed at managing distressing emotions, and meaning-focused coping, where efforts are made to understanding the situation differently or make sense of an experience (Park, 2010; Park et al., 2020). Bonanno (2004) emphasizes that unique circumstances may influence the path of each survivors' resilience trajectory, including their cancer and treatment-related factors, personal and social resources, and appraisal and coping processes that occur throughout the adaptation process. Coping processes, and in particular meaning-focused coping, have been shown to predict the development of resilience and psychological adjustment in cancer survivors due to an emphasis on maintaining a flexible mindset through the appraisal and reappraisal of meaning (Ahmadi et al., 2017; Bonanno, 2021; Park, 2010). Meaning-focused coping is unique from other forms of coping in that the aim is to reduce distress by decreasing the discrepancy between global and appraised situational meaning (Park, 2010). Lee et al. (2006b) note that the coping process may initially produce distress as one must confront perceived losses to initiate the cognitive processes of searching for order and purpose but can lead to improved psychological well-being as one begins

to reconstruct their world and integrate the effects of cancer. The strategies employed to facilitate meaning-focused coping include using positive reappraisal, revisiting goals, and activating spiritual beliefs and experiences (Park & Folkman, 1997). Meaning-focused coping after cancer includes the appraisal of cancer and subsequent treatment effects, the search for order and purpose in life, and eventual positive adjustment (Lee et al., 2004; Park & Folkman, 1997). Park (2010) notes that meaning-focused coping in survivors may decrease over time as meanings are made or shift between a focus on comprehending the event to contemplating the significance of the event.

Meaning-Centered Psychotherapy

Meaning-centered psychotherapy (MCP; Breitbart et al., 2010, 2015) is a manualized, brief therapeutic approach shown to enhance meaning, spiritual well-being, and quality of life in the cancer setting. Inspired by the work of Viktor Frankl (1959, 2014), MCP is founded on the basic concepts of logotherapy, which assert that life never ceases to have meaning, humans have an innate drive to find meaning, and meaning is derived from creativity, experience, and the attitude one chooses in the face of suffering (Greenstein & Breitbart, 2000). In addition, the approach emphasizes a historical perspective to meaning formation that recognizes past, present, and future legacy as critical elements in enhancing and sustaining meaning (Breitbart, 2016). Participants are encouraged to reflect on their choice of attitude, their ability to connect and engage in life, and the legacy they have lived or wish to create (Thomas et al., 2014). Therapists providing MCP help enhance a participant's sense of meaning in the face of illness through experiential exercises, didactic teaching, homework, interpretive comments, and open-ended discussion (Breitbart et al., 2014). Some examples of themes for discussion or homework include having participants identify moments in life that have felt particularly meaningful or reflecting

on the question “who am I” and discussing how cancer has affected their answers. Attitudinal sources of meaning are discussed in relation to life’s limitations with questions such as, “how are you responding to challenges and limitations? What would you consider a good life and a meaningful death?” Experiential sources of meaning are explored through reflective writing and sharing of how participants connect with life and feel most alive through experiences of love, beauty, creativity, and humour. Historical sources of meaning are identified through a discussion of past and present influences and the undertaking of a personal legacy project such as a photo album, video, music playlist, mending a broken relationship, or accomplishing an unfinished task (Breitbart & Poppito, 2014).

MCP can be administered in an individual or group format and has been shown to significantly decrease depression, anxiety, desire for a hastened death, and symptom burden distress in the cancer setting (Breitbart, 2016). Empirically validated for patients with advanced cancer (Breitbart et al., 2010), the approach has been adapted for a variety of cancer populations, including cancer survivors (Lichtenthal et al., 2015; van der Spek et al., 2017), caregivers of cancer patients (Applebaum et al., 2015), adolescents and young adults with cancer (Kearney & Ford, 2016), palliative care (Masterson et al., 2015), and bereavement (Lichtenthal et al., 2015) and includes cultural and linguistic applications in Mandarin (Leng et al., 2015), Spanish (Costas-Muñiz et al., 2015; Gil et al., 2015), and Hebrew (Goldzweig et al., 2015)

The Meaning-Making Intervention

The meaning-making intervention for cancer patients (MMi; Lee et al., 2006a) was developed to explore the effects of meaning-focused coping on cancer-related existential distress. The intervention is a collaboration between patient and clinician and acknowledges the losses and life threat associated with cancer, examines past challenges, and explores commitment to life

goals. The goals of the intervention are to normalize distress and facilitate the grieving process associated with a cancer diagnosis, respect the patient's individual meaning making process, and facilitate confrontation with what they consider to be the most threatening aspects of their situation (Henry et al., 2010). The intervention includes psychoeducation about normative reactions to a life-altering diagnosis, moving through life transitions, and the influence of beliefs and past experiences on current responses. Through discussion and the creation of a personal timeline marking important life events prior to cancer and desired goals after cancer, patients explore their beliefs and values and reflect on the personal impact of cancer in addition to the purpose of one's existence in relation to the cancer diagnosis (Lee et al., 2006a). MMi has been shown to be an effective intervention to facilitate meaning-focused coping and decrease psychological distress in cancer patients (Henry et al., 2010; Lee, 2008; Lee et al., 2006a)

Managing Cancer and Living Meaningfully (CALM) Therapy

Managing cancer and living meaningfully (CALM; Hales et al., 2010) is a brief, semi-structured individual intervention designed to alleviate distress and promote psychological growth in individuals affected by cancer through the enhancement of meaning making. While CALM was developed for individuals with advanced cancer, it is a relevant therapeutic framework to draw from when conceptualizing meaning-centered interventions for childhood cancer survivors due to its emphasis on living meaningfully within the parameters of cancer and its detrimental effects in addition to addressing practical needs and future uncertainty (Sethi et al., 2020). The identified goals of this intervention include a safe place to process the experience of cancer, assistance in taking an active role in managing healthcare needs and navigating the healthcare system, improved relationships, processing of losses, redefinition of social roles and identity, and an opportunity to explore future hopes, purpose and meaning in life (Nissim et al.,

2012). The intervention is patient-led in that the themes that are most relevant to the individual are prioritized. Practical needs are addressed in the form of information to manage symptoms and side effects and assistance navigating the healthcare system, resolving financial issues affecting treatment and caregiving, accessing government benefits, and arranging wills and power of attorney. Caregivers are encouraged to attend sessions to discuss relational issues related to diagnosis. The therapist offers a grounded presence that aims to see the patient as a whole person within the healthcare system and provides validation, normalization, and encouragement to bring up and discuss emotional content (Nissim et al., 2012).

The theoretical underpinnings of CALM include relational theory (Wachtel, 2007), which emphasizes the collaborative creation of meaning between patient and therapist, attachment theory (Bowlby, 1969; 1977) which conceptualizes different styles of interacting with support, and existential theory associated with discovering life's meaning and purpose (Hales et al., 2010). Utilizing the therapeutic relationship as a secure base, CALM employs a variety of individualized therapeutic techniques with the patient and their family members to enhance mentalization, the capacity to reflect on emotional states as separate from facts and accept the possibility of multiple perspectives (Lo et al., 2019). An integral component of CALM is regular peer supervision with case discussion to enhance professional practice and collegial support, in addition to self-reflection to mitigate the burnout associated with direct and ongoing contact with cancer patients suffering from psychological distress (De la Fuente-Solana et al., 2020).

Clinical Implications

Meaning making is widely considered essential for the adjustment to stressful events (Gillies & Neimeyer, 2006), yet many cancer survivors report their meaning making needs are unmet (van der Spek et al., 2013). To date, the majority of the literature on meaning making after

cancer has focused on survivors of breast cancer (for example, Ching et al., 2012; Kernan & Lepore, 2009; Lichtenthal et al., 2015), further necessitating the development of psychological interventions aimed at facilitating meaning making after childhood cancer to address the unique psychosocial spiritual needs of this survivorship population (Yi et al., 2015). The experience of having cancer during childhood and the losses associated with adverse late effects in adulthood may result in distress or even despair, but it may also be an opportunity for growth as one begins to discover meaning (Tremolada et al., 2016). Frankl (2014) suggested that while suffering isn't necessary to find meaning, difficult circumstances can stimulate the need for meaning and aid in the discovery of meaning (Kimble & Ellor, 2001). Frankl references Nietzsche's aphorism, "He who has a why to live for can bear with almost any how" (p. 97) and believed that the distress produced from a struggle or difficult circumstance such as cancer could be alleviated by having a sense of meaning or purpose and could even act as a catalyst for personal transformation (Wong, 2012). Interventions that facilitate meaning making attend to the paradox or the dialectical nature of the childhood cancer survivorship experience by addressing problems associated with late effects and acknowledging the losses and limitations while simultaneously cultivating resilience, personal growth, and future aspirations (Cantrell & Conte, 2009; Wong, 2012). This section explores clinical implications of meaning making with adult survivors of childhood cancer and discusses patient assessment, goal formation, and interventions to foster meaning making. The section concludes with professional practice considerations for the meaning-centered therapist.

Meaning-Centered Assessment

According to logotherapy, to understand an individual, one needs to understand how they perceive their world (Kimble & Ellor, 2001). Understanding a client's meaning system and how they label their experiences, respond emotionally to these experiences, and develop and pursue

behavioural goals is the foundation of meaning-centered assessment (Slattery & Park, 2011). It is well established that cancer-related adjustment can be conceptualized through a biopsychosocial framework (Ahmadi et al., 2017; Saad et al., 2017). Wong (2011) notes that a meaning-centered approach similarly conceptualizes humans as complete biopsychosocial spiritual beings within a specific historical and cultural context and emphasizes that this understanding guides the exploration of the client's unique global meanings and their understanding of the current problem. The therapist should ask about the precipitating event that brought the client to therapy and the associated events and symptoms in each domain, in addition to which current life events and behaviours are discrepant from their global meaning system (Slattery & Park, 2011). Common to many psychotherapies, logotherapy emphasizes the establishment of a therapeutic bond through empathetic listening (Kimble & Ellor, 2001). The use of survivor-derived language has also been identified as an important part of the assessment process as 'meaning' is an abstract term and has been shown to be conceptualized by survivors in a variety of ways including, "a thrill," "a sense of fulfillment," "a kick", or "the important things in life" (van der Spek et al., 2013, p.2).

A variety of psychometric tools have been developed to assess meaning constructs and posttraumatic growth after stressful life events (see Park & George, 2013 for a review). The best-known logotherapy tool is the Purpose in Life test (PIL; Crumbaugh & Maholick, 1969). The PIL is a widely studied psychometric instrument with high internal consistency that measures the degree to which an individual experiences personal life meaning and purpose (Schulenberg et al., 2008). The PIL consists of 20 items and employs a 7-point Likert-type response format to measure items such as enthusiasm vs. boredom, reason for living, presence of clear life goals, suicidal thoughts, and contentment in daily tasks (Schulenberg et al., 2011). Other commonly

used meaning-centered assessment instruments include the Post-Traumatic Growth Inventory (Tedeschi & Calhoun, 1996), Stress Related Growth Scale (Park, Cohen, & Murch, 1996), Perceived Benefits Scale (Tomich & Helgeson, 2004), and Personal Meaning Profile (Wong, 1993).

Assessment of Meaning. To assess a client's individualized meaning system, Kimble and Ellor (2001) recommend inquiry in three areas. The first area of inquiry examines the values, global meanings, and traditions of the individual. In this way, the therapist may begin to conceptualize the client's beliefs about themselves and their world. An example of this would be offering the client a word list of values and inviting them to identify one or two that are important to them. The second area of inquiry involves investigating the choices an individual has made in life. This may involve discussing the actions or choices the client has made that help them live out their values, in addition to the identification of current behaviours that contradict their values (Brown, 2018). As the client discusses their life experiences, the therapist can simultaneously assess inherent values in the client's decision-making while highlighting their ability to retain some choices and control over a more meaningful future (Kimble & Ellor, 2001). The third area of inquiry explores the significance or meaning of specific life events and encounters. An example would be facilitating discussion where the client begins to identify the gains and losses that they perceive as co-existing in a particular situation.

Frankl (2014) asserts that while life has ultimate meaning, it is a difficult concept to grasp and "exceeds and surpasses the finite intellectual capacities of man" (p. 141). In the same way a narrative therapist may draw attention to 'sparkling moments,' those events or encounters where the problem ceases to exist (White, 1993), the meaning-centered therapist does not stress the need to find ultimate meaning in life but instead highlights the meaning derived from the

smallest, even seemingly trivial life events. Reker & Wong (1988) describe meaning as discoverable through the choices and actions taken in everyday situations, stating “the zest and vitality of goal directed activities, the sweat of hard work and the joy of success, the excitement and satisfaction of engaging in intimate relationships, and the many personal experiences that give color, texture, and richness to the tapestry of life are the raw materials for present meaning” (p.230). In the assessment of situational meaning constructs in the childhood cancer survivor, one should attend to meanings that guide day-to-day behaviours, including those found in parenting, relating to others, and the ways one spends free time (Slattery & Park, 2011).

Assessment of Loss of Meaning. It is not uncommon for survivors to describe uncertainty about the future or a loss of meaning after cancer (Lee, 2006). Physical limitations or the inability to fulfill social roles, accomplish goals, or achieve developmental milestones may challenge meaning making efforts and produce a state of meaninglessness (van der Spek et al., 2013). Loss of meaning is an important assessment consideration since the failure to create satisfactory explanations for suffering or continued attempts to make meaning without positive results has been associated with increased psychological distress and posttraumatic stress symptoms (Park, 2010; Triplett et al., 2012). Slattery & Park (2011) note that therapists should pay close attention when an individual expresses only negative attributions of meaning or feelings of self-blame alongside increasing helplessness or hopelessness. Grief work may be warranted in situations where a survivor expresses distress related to catastrophic late effects, profound life disruption and suffering, or failure to achieve highly valued developmental milestones such as securing employment, having an intimate relationship, or having children (Kearney & Ford, 2016). Unaddressed grief, suffering, or loss of meaning in survivors can lead to depression, demoralization, and suicidality (Brinkman et al., 2014; Kearney & Ford, 2016;

Recklitis et al., 2010). A meaning-centered perspective interprets suicidality and the belief that life is not worth living as a loss of meaning or perceived loss of control (Kearney & Ford, 2016; Sun et al., 2021). In addition to a careful safety risk assessment and appropriate treatment of psychological symptoms, the therapist may find these expressions of distress are an opening to ask the client what would make today worth living and begin to explore meaning-centered themes (Kearney & Ford, 2016). Additionally, asking cancer survivors who report feelings of meaninglessness how they were able to form meanings in the past may help determine interventions to facilitate meaning-focused coping in the present (Slattery & Park, 2011; van der Spek et al., 2013).

Meaning-Centered Treatment Goals

The goal of logotherapy is to stimulate the will to meaning in the individual (Reker, 1994). Logotherapy is founded on three assumptions: *Meaning in life*, *freedom of will*, and *will to meaning* (Frankl, 1967). *Meaning in life* maintains that meaning is an objective reality. Life never ceases to have meaning. *Freedom of will* denotes an individual's ability to shape their own life within the parameters of their circumstances and amid physical or psychological suffering. There is both the freedom to find the meaning inherent in the present moment and the responsibility to live a life that is congruent with that meaning. *Will to meaning* asserts that each person is free to achieve goals and purpose in life. Psychological distress arises when individuals cannot realize their will to meaning. (Lukas & Hirsch, 2002).

Meaning-centered therapeutic goals align with Frankl's assumptions about the pursuit of meaning as a mechanism for change. They are aimed to promote an understanding of what it means to fully appreciate life and help survivors gain the psychological skills necessary to transform and transcend unavoidable suffering and to pursue valued life goals (Wong, 2012).

Meaning-centered goals promote the human search for meaning and purpose in life and the reconstruction of meaning through transforming one's view of self and the world (Wong 2012). In cancer survivorship, meaning-centered goals facilitate coping and promote positive growth through the enhancement of meaning and purpose in relation to a cancer diagnosis (Breitbart, 2017). Goals may include helping clients broaden the scope of possible sources of meaning, understand and utilize sources of meaning as a life skill for coping with challenging life events, recognize the experience and creation of meaning in the face of limitations, discover or enhance a sense of meaning after cancer, and engage in supportive group environments with survivors with similar challenges (Kearney & Ford, 2016; van Der Spek & Vedonck-De Leeuw, 2017).

Wong (2012) describes four domains of counselling goals in a meaning-centered framework that aim to activate the inner resources of the human spirit identified in logotherapy, such as love, discovery of meaning, life purpose, hope, dignity, creativity, responsibility, and the capacity for choice. The first domain addresses the motivational component of the human spirit that includes goals that promote determination of life direction, values, and aspirations. The second domain is the cognitive component and encompasses goals that include an enhanced sense of coherence and understanding of one's identity. The third domain of meaning-centered goals emphasizes responsible action and may include taking appropriate action or making amends. The fourth domain is the affective component. Goals in this domain involve self-assessment and the recognition of emotional states and degree of life satisfaction (Frankl, 1967; Wong, 2012).

Meaning-Centered Interventions

Meaning making is a process that can occur automatically at an unconscious level or deliberately as a result of active effort (Park, 2010; Park & Folkman, 1997). Frankl (2014)

emphasizes that personal meaning is discovered rather than created and can be detected through active engagement in the world, in relationship, and in discussion and reflection on life experiences and values (Wong, 2012). Because meaning making can occur outside the therapy room in everyday life as well as throughout the course of treatment, a wide range of interventions, life events, and experiences can help people discover meaning (Slattery and Park, 2011).

Psychoeducation. Meaning-centered therapeutic approaches commonly integrate a psychoeducational component to facilitate a learning process that involves investigating new ways of looking at life and living with purpose and meaning (Breitbart, 2017; Wong, 2012). The provision of relevant information is particularly important for childhood cancer survivors as many report their informational needs are unmet, both in regards to strategies for coping with uncertainty as well as information on late effects, available resources, and psychosocial supports (Hendriks et al., 2021; Howard et al., 2018; Kelada et al., 2019). In addition to helping survivors navigate the medical system and understand their healthcare needs, psychoeducation may be expanded to include information on meaning making concepts and potential sources of meaning (Hales et al., 2010; van der Spek & Vedonck-De Leeuw, 2017). Meaning making has clear implications for childhood cancer survivors as it has been shown to improve psychological distress, facilitate emotional regulation, increase awareness of social support, and enhance motivation for health-promoting behaviours (Melton & Schulenberg, 2008). Providing psychoeducation about the significance of meaning empowers clients to discover new ways of interacting with the challenges and limitations they face and experience more contentment and fulfillment in life (Schulenberg et al., 2008). Information on meaning constructs should be geared to survivors developmental stage and cognitive understanding (D'Agostino & Edelstein,

2013) and help individuals understand that therapy will focus on how to pursue the things in life that really matter to them, despite challenges and setbacks (Wong, 2012). Breitbart (2017) suggests clients read Viktor Frankl's *Man's Search for Meaning* as an introduction to meaning making concepts, but other informational and creative mediums that are relevant to the childhood cancer survivor and their unique social, developmental, and cultural context in the form of books, movies, music, and social media should be explored as potential sources of inspiration (Kearney & Ford, 2016).

Logotherapy Techniques. While logotherapy is generally considered a humanistic-existential theory, it has a holistic orientation that is complementary to many other therapeutic approaches (Schulenberg et al., 2008; Wong, 2012). Treatment generally involves helping the client differentiate from their symptoms and modify their attitude to perceive the choices they have in regards to personal life meaning (Schulenberg et al., 2008). There are three primary techniques of logotherapy: paradoxical intention, dereflection, and Socratic dialogue.

Paradoxical Intention. Paradoxical intention encourages the client to confront their biggest fears and imagine a worst-case scenario that is so ridiculous and so impossible that the only logical response is to laugh at it (Wong, 2012). An example of this might be encouraging a client who is struggling with insomnia to try and stay awake as long as possible. Similar to the externalization technique used in narrative therapy (White & Epston, 1989), where the client is encouraged to observe the problem as separate from themselves, paradoxical intention encourages self-distancing and attempts to eradicate the cycle of fear and anxiety that is perpetuating the problem through exaggeration and contradiction (Wong, 2012). The use of paradoxical intention necessitates a trusting partnership between therapist and client, psychoeducation about the technique and how it works, flexibility to shape the technique to the

individual's presenting complaints, and validation of the client's core feelings, including fear and anxiety (Schulenberg et al., 2008).

Dereflection. The technique of dereflection is used to counter a client's fixation on a problem by redirecting attention away from the symptoms and towards another person or meaningful aspects of the client's life (Frankl, 2005). This strategy shares similarities with cognitive reframing techniques found in cognitive behavioral therapies and includes values identification strategies common in acceptance and commitment therapy to set meaningful goals (Ameli & Dattilio, 2013). In the process of dereflection, the Values Awareness Technique (Hutzell, 1986) or the Valued Living Questionnaire (Wilson & Groom, 2006), may be used to create a personal meaningful values hierarchy to increase awareness of values and define meaningful short-term and long-term goals.

Socratic Dialogue. Common to both logotherapy and cognitive behaviour therapy, Socratic dialogue is a method of guided discovery where the therapist asks a series of carefully sequenced questions to examine the meaning of events and aid in the process of self-discovery (Beck & Dozois, 2011). By listening attentively, the therapist can emphasize keywords or phrases used by the client that help illuminate fresh perspectives, values, attitudes, and behaviours (Ameli & Dattilio, 2013). After hearing the client's description of the problem, the therapist maintains a caring and empathetic stance while asking questions in a naïve and ironic fashion with the intent of challenging some of the content narrated by the client to reveal the essential truth or belief the client holds (Martínez & Flórez, 2015).

Interventions for Sources of Meaning

Frankl (1959, 2014) suggests that sources of personal meaning can be found in three broad domains or pathways. The creative pathway to meaning involves giving or contributing

something to the world through our work. The experiential pathway to meaning explores what we receive from the world in the form of experiencing something or encountering someone. The attitudinal pathway to meaning speaks to the freedom to choose our attitude towards unavoidable suffering. Breitbart (2017) identifies a fourth domain relevant to meaning making after cancer that addresses historical sources of personal meaning and acknowledges the continuity of meaning in an individual's past, present, and future legacy. Once the client begins to perceive the freedom they possess to make choices in spite of limitations, the therapist can guide the client to consider meaningful goals, projects, and attitudes based on their personal discoveries of creative, experiential, attitudinal, and historical sources of meaning (Ameli & Dattilio, 2013; Breitbart, 2017).

Creative Sources. The creative pathway to meaning assumes that every human is responsible, creative, and capable of self-determination. This pathway recognizes the uniqueness of each individual and emphasizes that each person has something significant to contribute to the world (Wong, 2012). Creative sources of meaning include creating a work, doing a deed, or engaging in creative living and are often evidenced by humour, celebration, assertiveness, new creative pursuits, and altruism (Kimble & Ellor, 2001). Park & Folkman (1997) note that advocacy is a common expression of creative meaning for those who have experienced a loss or a traumatic illness such as cancer. Generous expressions of beauty through artistic means, contributions through work, or altruism and advocacy can coexist with life losses and deserve emphasis in the promotion of positive growth after cancer (Slattery & Park, 2011).

Creative Expression. Interventions to promote the discovery of creative sources of meaning emphasize an exploration of creative or goal-oriented values, interests, and causes (Wong, 2015). Losses in some domains of life, such as physical function, may be a catalyst for

growth in a new domain, such as an artistic endeavor. Meaning making through creative expression can become a lifelong skill that a survivor can develop to cope with loss, change and ongoing challenges after childhood cancer (Parry, 2005). Interventions that draw from creative therapies provide opportunities for nonverbal expression and offer a rich, multisensory platform to explore meaning making concepts with individuals with a range of physical and cognitive abilities. Boulton et al. (2018) used participant-produced photography with individuals with intellectual disabilities to help engage with abstract concepts such as core personal value systems during times of adversity. Bruscia (2000) identifies music as an accessible creative source of meaning in the music itself, the process of creating or listening to music, and in the context or relationship of a music experience. Listening to music and lyric analysis has been shown to be an effective intervention to promote meaning making and spiritual change in adults affected by cancer (Hiller, 2019). Other creative interventions that have been associated with meaning making after cancer include expressive writing (Craft et al., 2013; Merz et al., 2014), creative arts (Bradt & Goodill, 2013; Geue et al., 2013; Geue et al., 2010; Warson, 2012), and dance and movement therapy (Crane-Okada et al., 2012; Pisu et al., 2017; Sandel et al., 2005).

Experiential Sources. Experiential sources of meaning emphasize the actualization of valued experiences or encounters (Greenstein & Breitbart, 2000). While the creative pathway focuses on giving gifts to the world through work or achievements, the experiential pathway focuses on receiving gifts from life and embracing beauty, love, and relationship even when life presents challenges (Wong, 2012). Van der Spek et al. (2013) note that cancer survivors most often report meanings made from experiential sources and describe new appreciation for the simple things in life, such as the beauty of a sunset or a kind word from a friend. Hullmann et al. (2016) found that life goals commonly change after cancer and place a greater emphasis on

social relationships over achievement or leisure-focused goals. Interventions to promote experiential sources of meaning for survivors of childhood cancer begin with concretely exploring instances of creativity, love, beauty, nature, or humour that they encounter in their daily lives (Wong, 2015). Greenstein and Breitbart (2000) recommend these discussions be elaborated through Socratic Dialogue, including questions that highlight how meanings are experienced differently as a result of having cancer.

Gratitude. The process of discovering experiential sources of meaning involves fostering openness, sensitivity, and gratitude for all life has to offer (Wong, 2012). Interventions that foster gratitude have been shown to help survivors identify positive encounters and experiences that may have been previously overshadowed by negative thoughts (Ruini & Vescovelli, 2013; Vehling & Philipp, 2018). Common interventions to increase levels of gratitude include writing a gratitude letter to someone in life they are grateful for, gratitude journaling about things, people, and events one feels thankful for, and the Three Good Things exercise where one lists three positive things that have occurred in a given time period (Jans-Beken et al., 2020; Otto et al., 2016).

Supportive Relationships. Another important aspect of the experiential pathway to meaning is the recognition of loving and supportive relationships in one's life (Greenstein & Breitbart, 2000). Yi et al., (2015) found optimism and social support to be significant contributors to posttraumatic growth after childhood cancer. The support of family and friends has been shown to facilitate coping with cancer as well as being a positive outcome from having cancer (Greenstein & Breitbart, 2000). Many childhood cancer survivors recount the hope, positive attention, and support they received during and after treatment from family, friends, and healthcare staff (Howard et al., 2018; Parry & Chesler, 2005). In addition to bringing families

closer together, the experience of childhood cancer has the potential to alter family relationships, particularly when survivors experience significant physical, cognitive, or psychosocial late effects that compromise their autonomy. Kearney and Ford (2016) found that increased dependence on family and caregivers can intensify family dynamics and highlight the need for interventions that foster intergenerational relationships, communication, and family-centered approaches. While close relationships with friends and family are commonly mentioned as an important source of meaning after cancer, social isolation is one of the biggest challenges survivors face (van der Spek & Vedonck-De Leeuw, 2017). Interventions that foster social connection and peer support have been shown to decrease the negative impacts of a cancer diagnosis and increase quality of life in survivors (Park, 2010). Through participation in peer support, survivors can share their experiences with others who have had similar experiences, which may lead to the discovery of new perspectives and sources of meaning. (van der Spek et al., 2013; Yi et al., 2015).

Attitudinal Sources. A third source of meaning is the attitude one takes towards unavoidable suffering. Frankl (2014) emphasizes that even in the face of great challenges, humans are left with the freedom to choose their attitude in how they bear suffering. Greenstein and Breitbart (2000) explain that a common reaction to a crisis such as cancer is to appraise what can be done to alleviate the situation. Even if the situation is deemed unavoidable, one can still exert control by adapting one's attitude to this new reality. When a client understands they have the freedom to choose how they respond to life's limitations, they are able to experience suffering from a more positive perspective (Breitbart et al., 2014). Developing a positive perspective toward suffering requires both a change in perspective and a modification of attitude to make sense of the hardships and paradoxes of life after cancer (Wong, 2012).

Cognitive Reappraisal. Fostering meaning making from attitudinal sources involves interventions to promote cognitive reappraisal to help clients revise their assumptions and attitudes so they can recognize the potential for meaningful experiences in times of adversity (Breitbart & Poppito, 2014; Wong, 2012). Breitbart and Poppito (2014) note that therapists should be mindful that their approach to cognitive reframing doesn't become authoritarian or patronizing. Therapists need to be careful not to imply that suffering is necessary to experience meaning but instead communicate that meaning can be experienced despite or through how one responds to unavoidable suffering or life limitations (Breitbart & Poppito, 2014; Frankl, 2014). A cognitive reframing approach should highlight the client's own experiences which are congruent with meaningfulness rather than assert the therapist's own theories or impose a more positive spin on the client's perspective (Breitbart & Poppito, 2014). This may include the use of Socratic dialogue, dereflection, and paradoxical intention to draw out a sense of responsibility and explore how a client perceives their suffering in relation to their identified values or purpose, for example, supporting other patients, raising awareness, or educating medical staff (Greenstein & Breitbart, 2000)

Mindfulness. Mindfulness encourages moment-to-moment present awareness with a nonjudgmental stance and can lead to a change in our relationship to an experience (Kabat-Zinn, 2003; Shapiro et al., 2006). Ownsworth & Nash (2015) emphasize that the concepts of personal freedom and suffering require an understanding of self at the level of "being." Mindfulness practices can promote the development of a more authentic, accepting state of being, which can lead to increased emotional regulation and an opportunity for a more positive appraisal of life's values and the meaning (Slattery & Park, 2011). Mindfulness has been shown to decrease rumination and promote higher levels of positive emotions, coping, and resilience in cancer

survivors (Boyle et al., 2017), in addition to a sense of introspection and emotional regulation (van der Spek & Vedonck-De Leeuw, 2017). Cancer survivor, Valérie Tettinek (2018) describes a mind, body, heart scan to help recognize and accept mental, emotional, and spiritual states: “With the first breath, I check in with my head: what thoughts are present? With the second breath, I check in with my body: what emotions are present? With the third breath, I check in with my heart: what is important right now?” (para. 4). Wong (2015) notes that mindfulness interventions can also help explore a negative experience in greater detail and retell the event from different perspectives, reflecting on the meaning of what has happened and identifying what can be changed and what cannot. The acronym RAIN (Brach, 2020) is a commonly used tool for practicing mindfulness and compassion that can be used as a mindfulness meditation or as a mindful journaling practice. During RAIN, one *recognizes* whatever emotion is present, *allows* the experience to be there, just as it is, *investigates* with interest and care, and *nurtures* the feelings that arise with self-compassion.

Historical Sources. The historical pathway to meaning emphasizes our past, present, and future life narratives and highlights that meaning that can be found in the very witnessing of one’s own life (Breitbart, 2017). The process of reflecting on past life experiences can reduce despair by illuminating tasks and roles clients have found meaningful or joyful and identifying those which remain to be accomplished (Greenstein & Breitbart, 2000). The exploration of historical sources of meaning for cancer survivors has been adapted to emphasize a future focused orientation (van der Spek & Vedonck-De Leeuw, 2017) and the integration of past and present to support identity formation and envision goals for the future (Kearney & Ford, 2016).

Identity Formation. Interventions for childhood cancer survivors that promote an awareness of historical sources of meaning emphasize continuing one’s life narrative and

developing a strong sense of identity amidst limitations and uncertainty (Parry, 2003; van der Spek & Vedonck-De Leeuw, 2017). Many survivors describe disruption of normative identity development due to cancer and late effects and report an interruption of goals, forced dependence, and changes in body image, which may challenge self-concept and relationships with others (Thompson et al., 2013; Zebrack & Isaacson, 2012; Zebrack et al., 2004).

Developing a strong sense of past and present identity can be an emotionally grounding experience that guides future choices, enhances one's sense of self-worth, and provides meaningful connections between daily activities and long-term goals (Kearney & Ford, 2016).

Interventions to promote identity achievement create space in therapy for an exploration and experimentation with values and roles to help define what is personally meaningful (Kearney & Ford, 2016). One example is the Mountain Range Exercise, a common logotherapy intervention (Ernzen, 1990). During the activity, the client draws a mountain range that represents the course of their life thus far and indicates people of importance who are envisioned to be standing on top of the mountain peaks. The client then shares what they have in common with the individuals on their mountain range as well as whose mountain range they would like to be part of. The intervention is useful in individual and group settings for values clarification and the identification of positive aspects of one's life (Schulenberg et al., 2008). Van Der Spek and Vedonck-De Leeuw (2017) emphasize the importance of group therapy to facilitate the exploration of values and commitments through reflection, discussion, and information sharing. They describe a group intervention where survivors create a portfolio of life's lessons and use it to identify future goals and formulate concrete action plans. As survivors encounter others on different trajectories towards identity development, they may begin to accept that identity

distress and achievement is different for everyone and can change over time (Kearney & Ford, 2016; van der Spek & Vedonck-De Leeuw, 2017).

Autobiographical Reasoning. Wong (2012) asserts that human beings construct and communicate their activities and experiences as life stories filled with meaning.

Autobiographical reasoning is a key narrative mechanism and involves talking about the personal past in an attempt to integrate the present self and create a sense of personal coherence (Wong, 2012). The therapist pays attention to biographical themes from past and present events such as applying for jobs and personal activities such as social media, diaries, and blogs to help identify themes and develop a sense that diverse events may bring about change, but the self remains the same (Kearney & Ford, 2016). Questions about high point, low points, and turning points in a survivor's life story may reveal how they view their personal growth and development and provide information to assess their readiness for meaning-centered work (Kearney & Ford, 2016).

Role of the Meaning-Centered Therapist

The relationship between the client and therapist is an essential mechanism for therapeutic change in meaning-centered work. Wong (2012) describes the therapeutic relationship as transformative and “an authentic encounter that reaches the deepest level of common humanity between two individuals” (p. 629). As with Rogers' (1957) person-centered approach, the creation of a warm and accepting therapeutic environment by a therapist who exudes authenticity, empathy, and unconditional positive regard may serve to counter the client's negative self-attributions and reinforce hope for change and a better future, regardless of current circumstances or past failures (Slattery & Park, 2011; Wong, 2012). Meaning-centered approaches assume a universal need for meaning and belonging and conceptualize human

responses within social constructs, including culture, race, and gender. (Wong, 2012). Meaning is both individually and socially constructed, and meaning systems are shaped by one's historical and sociocultural interpretations (Thorne & Murray, 2000; Wong, 2012). The therapist should not prescribe meaning or offer positive interpretations but instead listen for the client's meanings, sensitively highlighting aspects of the client's experience that are consistent with meaningfulness (Greenstein & Breitbart, 2000; Slattery & Park, 2011). To facilitate conversations around meaning, Wong (2012) recommends therapists encourage and validate client strengths, affirm the intrinsic value of life and the positive meaning that can be found in any situation, communicate a belief in various possibilities and opportunities, support the client's cultural, religious, and spiritual beliefs, and assume a stance of humility when acknowledging one's own cultural blind spots and implicit biases.

Countertransference

There are important countertransference issues to consider when working with individuals whose lives have been significantly impacted by cancer. Greenstein and Breitbart (2000) note that therapists doing meaning-centered work with cancer patients should expect to encounter their own existential fears, particularly given the interconnectedness of the therapeutic alliance. They describe common countertransference responses such as overidentifying or disengaging as a defense against death anxiety and the harsher realities of suffering. Meaning-centered work emphasizes a need for personal growth as an essential part of professional development in order to be psychologically and spiritually present and emotionally attuned to the client (Wong, 2012). In addition to engaging in clinical supervision, therapists should cultivate their own physical health, intellectual stimulation, spiritual health, and meaningful relationships to mitigate burnout and vicarious trauma (De la Fuente-Solana et al., 2020; Ordway et al., 2020;

Slattery & Park, 2011). As befits meaning making work, therapists should aim to practice self-compassion and adopt an attitude that allows for the successes and mistakes in the counselling room to be opportunities for personal and professional growth and the discovery of helpful meanings (Slattery and Park 2011, Wong, 2012, Greenstein 2000).

Chapter Summary

In this chapter, I examined issues in childhood cancer survivorship, including late effects in the physical, cognitive, psychosocial and psychospiritual domain. Within the psychospiritual domain I explored the processes of posttraumatic growth and identity formation. I summarized the literature on meaning constructs, including personal meaning systems and meaning-focused coping, and described meaning-centered therapeutic approaches in the oncology setting. I discussed clinical implications of meaning making with adult survivors of childhood cancer, including assessment considerations and goal formulation. Using Frankl's (1946, 1967, 2014) logotherapy as a framework, I conceptualized meaning-centered interventions to activate sources of meaning and promote positive coping and growth in the midst of suffering or limitations, such as those derived from the late effects of childhood cancer treatment. This chapter concluded with a discussion of the role of the meaning-centered therapist, characteristics of the therapeutic relationship, and countertransference issues. In the next chapter, I will propose a workshop for adult survivors of childhood cancer at a long-term follow-up clinic, introducing participants to meaning making as a life skill to facilitate meaning-focused coping, resilience, and positive growth after cancer.

Chapter 3: Discussion, Workshop, and Conclusion

Adult survivors of childhood cancer were treated before they had reached full physical and cognitive development and may experience a wide range of late effects affecting their physical, cognitive, social, and psychological wellbeing into adulthood (Hewitt et al., 2003; Landier et al., 2015; Oeffinger & Robison, 2007). Additionally, identity formation and the psychological processing of their cancer experience may be delayed due the disruptive nature of their treatment during critical developmental periods (Schwartz et al., 2015; Schwartz & Drotar, 2006). Meaning making interventions were found to be uniquely suited for this group of cancer survivors due to the individualized nature of personal meaning systems and limitless potential of meanings made (Park, 2013b; Park & Folkman, 1997). Using Frankl's (1967, 2014) proposed sources of meaning, attitudinal sources of meaning and the freedom to choose one's attitude and perspective towards suffering are particularly relevant for childhood cancer survivors given the challenges and limitations commonly faced due to late effects. Additionally, the identification of meaning in the creative, experiential, and historical domains were identified as effective avenues to explore alternate ways to cope with life's challenges and experience an enhanced sense of fulfilment and a purpose in life. No childhood cancer survivor's experience is the same and meaning making offers a therapeutic approach that validates the individualized aspects of suffering associated with childhood cancer treatment, late effects, or resulting social disadvantage while highlighting the hope that remains through the identification of positive results of the cancer experience in the form of posttraumatic growth (Parry & Chesler, 2005; Zeltzer et al., 2009). Additionally, meaning making was found to be an effective strategy to promote the development of posttraumatic growth, coping, and identity achievement after

childhood cancer (Cantrell & Conte, 2009; Park et al., 2008; Parry, 2003; Parry & Chesler, 2005).

Studies examining meaning making specifically with adults who were treated for cancer as children are limited and emphasize the need for further research investigating targeted interventions to promote meaning making with this cancer survivorship group (Cantrell & Conte, 2009; Duran, 2013; Parry & Chesler, 2005; Rabelais et al., 2019). As a result, this capstone aimed to explore interventions used in meaning-centered therapeutic approaches with other cancer populations and conceptualize adaptations to address the unique needs and experiences of childhood cancer survivors. Psychoeducation on meaning-focused coping and sources of meaning has been shown to address an unmet informational need identified by many cancer survivors (Hales et al., 2010; van der Spek & Vedonck-De Leeuw, 2017). Additionally, creative activities, self-reflection, and group discussion have been found to enhance meaning-centered interventions through experiential learning and social connection (Breitbart, 2017; van Der Spek & Vedonck-De Leeuw, 2017). In the following section, I propose a virtual workshop comprised of psychoeducation, experiential activities, self-reflection, and discussion topics for adult survivors who wish to learn about meaning making and how it can be fostered as a life skill for coping with the challenges and limitations that arise after childhood cancer.

Workshop Outline

Basic Description

While the challenges associated with cancer survivorship can produce uncertainty and stress, they can also be a springboard for personal growth and even thriving (Parry, 2003; Parry & Chesler, 2005; Zebrack & Isaacson, 2012). In this workshop, participants will learn how meaning making can become a lifelong skill for coping with life's challenges and cultivating a

deeper sense of meaning, purpose, and appreciation for life. During this psychoeducational and experiential group session, participants will be introduced to meaning making and posttraumatic growth concepts and explore pathways to meaning as proposed by Viktor Frankl (2014), including attitudinal, creative, experiential, and historical sources of meaning. This workshop is 90 minutes in length and will take place virtually using Zoom for Healthcare to maximize accessibility for those with physical limitations, immune-compromised status, or those living in rural locations.

Workshop Entry Expectations

Adult survivors of childhood cancer who are followed by a regional long-term follow-up clinic and have indicated they wish to receive email communication will be invited to this workshop by email approximately one month prior to the workshop date. Pre-registration is required. Participants must have internet access and provide informed consent for virtual healthcare. Participants with a range of physical and cognitive abilities and their caregivers are welcome. Subtitles will be enabled to facilitate participation for those who are deaf or hard of hearing. Participants may choose whether they wish to have their video cameras off or on. To maintain privacy and confidentiality, only participants' first names will be displayed onscreen. The session will not be recorded, and participants will be asked to refrain from taking screenshots, photos, or videos during the presentation.

Participant Learning Outcomes

Upon successful completion of this workshop, participants will be able to understand basic concepts of meaning making and how it relates to physical and psychological well-being in childhood cancer survivorship. Additionally, participants will be able to identify areas of positive growth after cancer and sources of personal meaning in their lives. Finally, participants will

understand how to access additional resources should they wish to further explore meaning making through counselling, personal study, mindfulness practice, values clarification, creative pursuits, and social connection.

Workshop Content

For a detailed description of workshop content and sample presenter script refer to Appendix A. In this workshop, the following concepts, ideas, or topics will be covered:

1. Definition of meaning making.
2. Relevance of meaning making in the promotion of health and well-being after cancer.
3. Factors that influence perceptions in childhood cancer survivorship.
4. Meaning making theory and concepts.
5. Posttraumatic growth after cancer.
6. Introduction to Viktor Frankl (2014) and his proposed sources of meaning.
7. Life practices to cultivate the discovery of personal meaning.

Methods of Presentation

The following methods of instruction will be used in this workshop:

1. Didactic teaching supported by visual slide presentation.
2. Self-reflection and experiential activities.
3. Group discussion.
4. Onscreen participant poll.
5. Follow-up handout summarizing workshop concepts including embedded links to relevant resources (see Appendix B).

Method of Evaluation

The method of evaluation for this workshop will be an anonymous online survey where participants will be invited to answer three open-ended questions. The responses will be used to tailor the resources to be included in the follow-up electronic handout as well as for the development of future learning opportunities. The evaluation questions are as follows:

1. What is something you learned in this workshop?
2. What, if anything, would you like to learn more about in terms of meaning making and cancer survivorship?
3. Do you have any other comments or feedback that you would like to add?

Limitations to this Capstone

While this capstone aimed to address a gap in the childhood cancer survivorship literature by proposing specific meaning-focused interventions to promote positive growth in adult survivors, there were limitations. Due to the lack of studies specific to meaning making with adult survivors of childhood cancer, much of the adaptations to interventions and the proposed workshop for this population had to be inferred from meaning-centered approaches designed for those with advanced cancer or breast cancer survivors (Breitbart, 2017; Hales et al., 2010; Lichtenthal et al., 2015; Nilsen et al., 2021). Moving forward, the voices of adult childhood cancer survivors could be better represented through research investigating their perception of their survivorship experience in addition to their meaning making needs. As with van der Spek et al.'s (2013) focus group study that led to an adaptation of meaning-centered group psychotherapy for cancer survivors (Van Der Spek & Vedonck-De Leeuw, 2017), a focus group with adult survivors of childhood cancer may serve to inform the development of effective meaning-centered clinical approaches, targeted interventions, therapeutic groups, and workshops for this

cancer survivorship group by increasing awareness and understanding of their unique perspectives and psychosocial spiritual needs.

Chapter Summary

In this chapter I discussed the findings from the literature review on the biopsychosocial spiritual impacts of childhood cancer survivorship and meaning making and proposed an outline for a workshop on meaning making for adult survivors of childhood cancer. I detailed a description of the workshop, outlined workshop entry expectations, and identified learning objectives. Additionally, I described the workshop content and method of presentation, including a presentation script (see Appendix A). I described the method of evaluation to be used in the form of an anonymous survey entailing three open-ended questions to be emailed to participants after the workshop. Finally, I created a sample summary handout with accessible resources for personal study including embedded links to free online content should participants desire to go deeper and further explore the concepts that were discussed (see Appendix B). The chapter concluded with a discussion of limitations of this capstone and a proposal for future research.

Conclusion

This capstone explored meaning making as a coping strategy and mechanism to foster posttraumatic growth in adult survivors of childhood cancer. While this survivorship population experiences unique challenges in the physical, informational, emotional, psychological, social, practical, and spiritual domains, they also exhibit evidence of positive outcomes after cancer including resilience, coping, and posttraumatic growth. Meaning making is an established framework to promote coping and positive growth after stressful experiences and has significant potential to enhance psychological wellbeing, identity formation, and life satisfaction after childhood cancer. Meaning-centered treatment approaches uniquely address the paradox of

cancer survivorship by validating the losses associated with a pediatric cancer diagnosis and late treatment effects while illuminating the meaningful aspects of life that still exist in the face of existing challenges. Interventions that promote the discovery of personal meaning offer adult survivors an opportunity to experience alternate, more optimistic perspectives, re-story their cancer experience, and discover new hope, meaning, and purpose in life after childhood cancer.

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Appendix A

Workshop Presenter Script

Presenter welcomes participants and reviews confidentiality, group guidelines, and use of Zoom for Healthcare functions, including enabling subtitles, sending a message to the host, online polls, and video and audio functions. The presenter introduces self and professional role to participants and outlines the agenda for the evening and format of the workshop. Slide visuals are shared on screen and include simple text and licensed photos, comics, and artwork that enhance or illustrate the presentation. Slides also indicate instructions for experiential activities and guiding questions for reflection and discussion. The following script has been adapted from Dr. Wendy Lichtenthal's (2011) presentation to cancer survivors at Memorial Sloan-Kettering Cancer Center, *The Process of Meaning Making from the Cancer Experience*.

Introduction

Thank you for taking the time to attend the session this evening to discuss meaning making after cancer. This workshop is a 90-minute learning opportunity and will include some invitations for self-reflection, sharing, and discussion about meaning and how it shows up in our lives. Feel free to have a paper and pen handy to jot down your thoughts during the activities and reflections. To begin, I'll summarize some of the studies that have investigated how survivors have coped, both physically and emotionally with childhood cancer, even years out from treatment. These studies highlight the challenges some of you might face but also describe some of the positive outcomes from cancer that aren't as commonly discussed and have inspired the topic for tonight. How do we explore the meaning and significance of the cancer experience without glossing over the very real struggles and why does finding meaning in life even matter?

Defining of Meaning Making

What is meaning making? It can certainly seem like a bit of a vague concept at first. Some people describe it as making sense of an experience or discovering some of the positive results of a challenging experience. Some people call it the important things, the things I love or value, things that spark joy, or give that sense of appreciation for life or fulfillment in life. Interestingly, all these descriptions of meaning can exist alongside suffering and sometimes are even enhanced by suffering.

Self-Reflection Question

Bring to mind two or three moments when life has felt particularly meaningful to you. How were those moments impacted by having cancer?

The Paradox of Survivorship

The research tells us that surviving cancer has multiple sides to it. It's been referred to as a paradox of sorts. On one hand, surviving such a challenging experience is celebrated and associated with strength, bravery, and great fortitude. On the other hand, many survivors talk about the stressful side of being a cancer survivor and the change in life goals, either because priorities have changed or because of a disability or limitation from treatment effects. Another challenge a lot of people talk about is the feeling of uncertainty. Uncertainty can show up as an underlying sense of worry or anxiety about the future. This might bubble up at different times in life, such as when you encounter a challenge or can't achieve a certain life goal that you really hoped for. It can show up at a transitional point in life, perhaps when you're trying to get a job, considering retirement earlier than you thought, or trying to date or start a family. If you have children in your life, you might experience worries when they reach the age you were diagnosed at. This experience of continuing to process cancer throughout adulthood is especially true for childhood cancer survivors because you may have been too young to really understand or process what was happening at the time.

Some of the fears and worries that come alongside gaining a full understanding of the impact of treatment might happen much later and that can be surprising or unsettling.

A recent study found that about half of cancer survivors indicate they experience existential worries, fear of relapse or cancer recurrence, and a lack of meaning after cancer. They indicated that they would like more support around concerns related to meaning and purpose in life after cancer. Many cancer survivors report feeling stuck and struggle with their identity and sense of purpose. They might struggle with the question “why did this happen to me” or “why is this still happening to me” and don’t feel like they’ve received a lot of support or information on how to work through some of those questions.

Meaning, Health, and Well-Being

Why think about meaning? Why is meaning making important? We are learning that the way a survivor perceives their cancer experience is more of a predictor of how much life satisfaction they experience than what type of cancer they had, how severe their treatment was, or how limiting their late effects might be. A decreased sense of meaning has been associated with depression and anxiety and can even affect physical symptoms like pain and fatigue. On the flip side, an enhanced sense of meaning or being engaged in something meaningful has been shown to change people’s perception of treatment effects like pain and fatigue, enhance psychological well-being, and improve physical health.

Perception of Survivorship

Meaning making can affect health and well-being because it can shift the way we view things, which in turn impacts the way we feel physically and emotionally and guides our behaviours and actions. There are several factors that have been shown to influence how people perceive their childhood cancer experience. These include the age you were diagnosed at and the experiences

you've had since, the effects from treatment and how that's affected your life goals like going to school, employment opportunities, or trying to start a family. Your coping strategies and the ways you deal with stress will also affect how you experience cancer survivorship. Our familiar coping strategies often work for us at a certain time of life, but we may need to discover new coping strategies to meet different challenges that arise. Challenges to finding meaning can also include the amount of time or energy we have. Sometimes we really would like to spend time delving into new ways to experience meaning in life or think about our identity after cancer but competing responsibilities or physical limitations might feel like a block to that. Maybe something you used to love, like hiking or bike riding has been really impacted by fatigue or treatment effects and just isn't possible right now. A lack of social support and feeling isolated in your experience can also impact the way we perceive ourselves and the world around us.

Posttraumatic Growth

Despite the prevalence of late effects, many childhood cancer survivors, over 80%, report at least one positive outcome from having cancer. Positive growth after a stressful situation is sometimes referred to as posttraumatic growth and can be found in these five areas:

1. increased personal strength, resilience, confidence, and self-reliance
2. openness to new interests, perspectives, and possibilities
3. improved relationships, an increased sense of belonging, vulnerability, empathy
4. spiritual growth, a deeper sense of purpose, clearer faith, meaningful beliefs
5. a new appreciation for life, altruism, an increased sense of gratitude

Posttraumatic growth in adult survivors has been shown to include a balance of several factors, including the strategies used to cope with stress, life goals, optimism, and utilizing social support. Additionally, the discovery of meaning, purpose, and a strengthened sense of identity,

understanding our beliefs and values and making choices that align with those values, has all been shown to enhance positive growth after stress.

Discussion Question

What area have you experienced growth after cancer? Using the poll feature, indicate one of these five areas in which you have experienced the most positive growth after cancer. Can anyone give an example of how the area they identified has been enhanced because of cancer?

Personal Meaning Making Systems

I'd invite you to consider your personal meaning-making system. Your meaning making system is as unique as you are and includes your core beliefs or your central beliefs about yourself and how the world works. Our meaning making systems determine our thought patterns, reactions, and behaviours as well as how we assign meaning to a specific situation. When we encounter a challenge or a struggle like cancer or a late effect from treatment, we compare that event against what we believe about the world. Our beliefs about the world and how it works are influenced by the way we've been raised and the experiences we've had. Sometimes our beliefs are conscious but sometimes they're a little more hidden and it takes some effort to uncover our core beliefs. For example, perhaps you have a belief that the world should be just and fair or a fulfilling life equates with a certain goal like getting a certain job, making a certain amount of money, or finding a partner and having children. A new challenging event like discovering another late effect from a treatment after you've already been through such a highly challenging experience might really rub up against your beliefs about how the world should work and create that cyclical thought, "why me? Why is this happening to me?" This can initially be quite uncomfortable. That "why me" question can affect our ability to find new meanings in two different ways. Sometimes the question, "why did this happen to me" becomes a motivator to clarify what's really important and can be a springboard to the discovery of new meanings and a new appreciation for life. But sometimes, that "why me"

question can go round and round in our minds and cause a lot of sadness, frustration, and hopelessness until we're able to make sense of our experience and discover some new meaning around it.

Self-Reflection

Take a moment to consider the following question: What are my central beliefs about myself and the world?

Validating Suffering

So how do we get unstuck if we're feeling a lack of meaning or if you have a fair bit of meaning in life already, then how can that be even further enhanced? Firstly, validate suffering. Offer yourself self-compassion rather than self-criticism. Meaning making isn't about ignoring suffering or putting a positive spin on things by disregarding aspects of life that are difficult. Before we can reframe an experience or look at other perspectives, we need to acknowledge the parts that are very hard. Whether you remember the shock of diagnosis and treatment or the treatment effects that came later, or the changes in your family or life because of cancer, it's important to acknowledge the losses, grieve them, and offer yourself compassion instead of comparing yourself to others and wondering why you can't look at this differently or find meaning and purpose in this experience like other people do.

Group Reading and Discussion

Consider this quote by self-compassion researcher, Kristen Neff. "Whenever I notice something about myself I don't like, or whenever something goes wrong in my life, I silently repeat the following phrases: This is a moment of suffering. Suffering is part of life. May I be kind to myself in this moment. May I give myself the compassion I need" (Kristen Neff, *Self-Compassion: The Proven Power of Being Kind to Yourself*). What would you tell a good friend who was being hard on themselves? What words or phrases might you use for your own self-compassion script?

Supportive Relationships

It's also important to seek out people you can be vulnerable with. People who can hold space for your complex feelings. Some of you might have that in a friend or a family member but for others it takes a bit of searching. It might be a counsellor or finding a supportive group of people in person or online. It doesn't need to be a support group with people who get every aspect of your cancer experience, because no one is going to have the same experience but, instead, a group of people who can listen to how challenging things might be and act as a witness to your losses and suffering.

Self-reflection

Who in my life am I free to be vulnerable with? What steps could I take to enhance my community of supportive people?

Viktor Frankl and Sources of Meaning

Understanding the choices we have is an important part of feeling more in control of the direction our lives take. The meanings we derive in life are as unique as we are. No one can prescribe meaning for you or tell you the right way to look at a situation. It's something that needs to be personally discovered and might very well change or adapt over time as you have new life experiences. While meanings are very individual, there are some common pathways or categories where meaning can be found.

Viktor Frankl was an Austrian psychiatrist who has done a lot of influential writing and theorizing on the discovery of meaning and how essential it is for human beings to find their own meaning and purpose in life to feel alive and fulfilled. He was a prisoner in the Nazi concentration camps and wrote about the intense physical, emotional, and spiritual suffering he experienced in his book *Man's Search for Meaning*. In his writing, he emphasizes that discovering meaning through suffering is not the same as accepting suffering or injustice. If suffering can be avoided or cured or

treated, it absolutely should be. But sometimes, as you know, you still have to live with aspects of cancer or late effects that are very challenging and for these times, meaning making can be a really useful coping strategy to deal with difficult times because it emphasizes the choices we still have. Meaning making gives us a choice in how we perceive our suffering, the attitude we take towards our suffering. Frankl saw every freedom being taken from him and his fellow prisoners and realized that even when it seems as if every choice is taken from you, there is something no person or no situation can take away, the freedom to choose our perspective and the attitude we take towards our suffering.

Attitudinal Sources of Meaning

This brings us to the first source of meaning to explore. Attitudinal sources of meaning speak to the freedom to choose our attitude towards unavoidable suffering, changes in perspective, and a modification of attitude. Sometimes this type of meaning can be discovered spontaneously. Someone might say something or you'll read something or hear something that flips a switch, so to speak, and has you considering another perspective. Frankl tells a story that I think is a good illustration of how a situation can suddenly be reframed so you see it from another side.

Group Reading

Once, an elderly general practitioner consulted me because of his severe depression. He could not overcome the loss of his wife who had died two years before and whom he had loved above all else. Now, how can I help him? What should I tell him? Well, I refrained from telling him anything but instead confronted him with the question, "What would have happened, Doctor, if you had died first, and your wife would have had to survive you?"

"Oh," he said, "for her this would have been terrible; how she would have suffered!"

Whereupon I replied, "You see, Doctor, such a suffering has been spared her, and it was you who have spared her this suffering — to be sure, at the price that now you have to survive

and mourn her.” He said no word but shook my hand and calmly left my office. In some way, suffering ceases to be suffering at the moment it finds a meaning, such as the meaning of a sacrifice. (Victor Frankl, *Man’s Search for Meaning*)

Self-Reflection

Can you recall a time you’ve experienced a shift in perspective or seen a difficult situation from a different angle?

Mindfulness Activity

Attitudinal sources of meaning can also be discovered intentionally. Mindfulness practices can enhance our noticing of the sources of meaning around us and help us accept some of the more challenging aspects of our situation by becoming less attached or less intent on changing it. This can give our minds the space to widen our perspective, to move from pushing so hard to trying to change or achieve something that isn’t maybe attainable at this time, and to instead investigate and invite other perspectives. Tara Brach’s (2020) RAIN meditation is a tool to for taking a pause and bringing mindfulness and compassion to difficult experiences. I invite you to try it out the next time you find yourself struggling with difficult emotions. Find a quiet spot and start with a few mindful breaths. Bring your challenge or emotional difficulty to mind and move through these four steps:

1. Recognize what is going on
2. Allow the experience to be there, just as it is
3. Investigate with nurture and care
4. Nurture with self-compassion

Creative Sources of Meaning

The creative pathway to meaning involves giving or contributing something to the world through our work or creativity. These are the things we do or produce and the people or things we’re responsible for or care for. Creative sources of meaning can also be found in humor,

celebration, assertiveness, new creative pursuits, and altruism or advocacy. One way to notice or discover creative sources of meaning might be trying something new and taking a risk by joining a class, taking up a new hobby, contributing or giving back in some way. These can be simple things, like the way you advocate for yourself or for your family members, your sense of humor, the way you always remember a birthday or your thoughtfulness to send a text when you're thinking of someone. This can even be about how you contribute on social media or online.

Group Discussion

What creative sources of meaning are already evident in your life? What are the things you create or offer the world that bring you a sense of joy or fulfillment?

Experiential Sources of Meaning

If creative sources of meaning are the things we give to the world, experiential source of meaning are what we receive from the world in the form of experiencing something or encountering someone. It's the way we notice beauty, love, and relationships. The research tells us that this is the most common pathway to meaning after cancer, having a new appreciation for the simple things in life like a smile or kind word, a beautiful sunset, and deeper relationships.

Self-Reflection

What experiential sources of meaning are in your life? Take a moment to scroll back through the photos of your phone if you need some reminders. Perhaps it's a beautiful meal, a smile of someone we love, our pet, a flower in bloom, or an open span of beach.

Three Good Things Activity

Discovering experiential sources of meaning can be enhanced through gratitude because it helps us take notice of the gifts that the world offers us. Some of you might already have a gratitude practice. You might journal or list the things you feel grateful for when you wake up or close off your day. I recently spoke with someone who practiced gratitude by listing "3 good things" on her

daily walk. This individual found that when she reflected on the good things from the day it helped dampen the pain she experienced when walking, increased her energy and motivation, and made her more aware of the positive things in her life. I invite you to take a minute right now to try it out.

Write down or bring to mind three good things in your life.

Historical Sources of Meaning

Historical sources of meaning explore how the experiences we've had in the past and the meanings we've made of those past events play out in our present lives. The significance we attribute to our past experiences contributes to the development of our identity, our values, and things we deem as important and helps us envision goals for the future.

Mountain Range Activity

Historical sources of meaning can be discovered by looking back on your life or upbringing and identifying the significant memories, relationships, and traditions that have made the greatest impact on who you are today. Envision a mountain range and draw a line across your page that resembles the peaks and valleys. Think of this mountain range as a timeline of your life, with your early years on the left and moving towards present day. On each peak is an influential person in your life, such as a friend, a family member, a teacher, or perhaps an author or musician. It may be someone you've met or someone you've only heard about or read about. Draw or write their names on each peak. Now write something that you have in common with that person, perhaps it's a quality or talent you admire or aspire to. Finally, think about the people in your life. Whose mountain range are you standing on? What are some of the things you love or value that you want to pass on to another? What values did you identify in this activity? What are one or two behaviours you do or want to do to support living a life that aligns with you values?"

Summary

The meanings we discover in life are unique to every person but can be discovered through these four pathways or sources of meaning:

1. Attitudinal sources of meaning refer to the freedom to choose our attitude towards unavoidable suffering, changes in perspective, and a modification of attitude.
2. Creative sources of meaning involve giving or contributing something to the world
3. Experiential sources of meaning explore what we receive from the world in the form of experiencing something or encountering someone, embracing beauty, love, and relationships.
4. Historical sources of meaning examine how the experiences we've had in the past influence our present lives, contribute to the things we think are most important, and help us envision goals for the future.

Self-Reflection

In closing, take a moment and think about which one of these pathways most sparked your interest. Is there one you would like to investigate further in your own life?

Closing

Presenter thanks participants for coming and reviews feedback questions that will be sent out after the session in addition to a summary handout with additional resources.

Appendix B

Post Workshop Handout

Meaning Making After Childhood Cancer

Summary from a Discussion for Adult Survivors



Meaning Making

Meaning making can help us cope with stressful experiences through the discovery of positive aspects of life that exist even in the midst of challenges. The discovery of meaning and being engaged in something meaningful has been shown to enhance psychological well-being, alter cancer survivors' perceptions of treatment effects like pain and fatigue, and improve physical health.

Positive Growth After Cancer

Many cancer survivors experience feelings of uncertainty about the future, a loss of meaning in life, or changes in life goals due to altered priorities or limitations. Despite these challenges, over 80% of childhood cancer survivors report some positive growth after cancer in one or more of the following areas: personal strength, appreciation for life, improved relationships, new possibilities, and spiritual growth. Positive growth after cancer is more influenced by a survivor's perception of their cancer experience and available social support rather than the type of cancer they had or the severity of their treatment effects. Meaning making can enhance positive growth after stressful situations by shifting our perspective to discover the meaningful aspects of life that still exist amidst challenges and limitations. [Discover how you experience growth after stress](#)

(https://results.wa.gov/sites/default/files/WendyFraser_Oct28_HANDOUT.pdf).

Sources of Meaning

Viktor Frankl, an Austrian neurologist, psychiatrist, and Holocaust survivor wrote about his experiences of suffering as a prisoner in the Nazi concentration camps in his book *Man's Search for Meaning*. [Watch a short animated video summary of Man's Search for Meaning \(https://www.youtube.com/watch?v=SVhuCpgLCTE\)](https://www.youtube.com/watch?v=SVhuCpgLCTE). Frankl believed that human beings are designed to discover meaning in life.

Attitudinal Sources of Meaning

The freedom we possess to choose our attitude and perspective towards limitations, challenges, and unavoidable suffering. Attitudinal sources of meaning can be fostered through self-compassion and mindfulness practices such as [Tara Brach's RAIN meditation \(https://www.tarabrach.com/rain/\)](https://www.tarabrach.com/rain/).

Creative Sources of Meaning

Giving something to the world through our work or creativity, the people or things we're responsible for, and our unique attributes such as humor and kindness. Creative sources of meaning may be discovered through new creative pursuits or contributing our gifts and talents to a cause outside of ourselves.

Experiential Sources of Meaning

The gifts we receive from the world around us in the form of experiencing something or encountering someone. Appreciating the simple things in life and embracing beauty, love, and relationships. Experiential sources of meaning can be cultivated through [gratitude practices \(https://positivepsychology.com/gratitude-exercises/\)](https://positivepsychology.com/gratitude-exercises/).

Historical Sources of Meaning

Recognizing how the significant experiences we've had in the past have contributed to our present identity and help us envision goals for the future. Historical sources of meaning can be discovered by exploring our values and setting meaningful goals that align with the things we think are most important. Try out [this values worksheet by Brené Brown](#)

<https://brenebrown.com/resources/living-into-our-values/>) to explore what living into your values might look like.

Want to Learn More? [Watch this 20 min video of clinical psychologist, Dr. Wendy Lichtenthal \(https://www.youtube.com/watch?v=rAWFJGPjDMs\)](https://www.youtube.com/watch?v=rAWFJGPjDMs) explaining the process of meaning making after cancer.